

ENVIRONMENTAL ASSESSMENT

**MCON Project P-193**

**Waterfront Improvements for Wharves K10-K11**

Pearl Harbor Naval Complex

O'ahu, Hawai'i

Department of the Navy

April 2004

REPORT DOCUMENTATION PAGE			Form Approved OMB No. 0704-0188		
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1. REPORT DATE (DD-MM-YYYY) xx-04-2004		2. REPORT TYPE Final Environmental Assessment		3. DATES COVERED (From - To) Sep 2003 - Apr 2004	
4. TITLE AND SUBTITLE ENVIRONMENTAL ASSESSMENT, MCON Project P-193  Waterfront Improvements for Wharves K10-K11  Pearl Harbor Naval Complex, Oahu, Hawaii		5a. CONTRACT NUMBER N62742-03-D-1832 AMDT 11			
		5b. GRANT NUMBER			
		5c. PROGRAM ELEMENT NUMBER			
6. AUTHOR(S) Renard, Gail  Fee, Thomas A.		5d. PROJECT NUMBER P-193			
		5e. TASK NUMBER			
		5f. WORK UNIT NUMBER			
7. PERFORMING ORGANIZATION NAME(S) AND ADDRESS(ES)  Helber Hastert & Fee Planners, Inc. 733 Bishop Street, Suite 2590 Honolulu, HI 96813		8. PERFORMING ORGANIZATION REPORT NUMBER			
9. SPONSORING / MONITORING AGENCY NAME(S) AND ADDRESS(ES) Commander <b>Naval Facilities Engineering Command, Pacific</b> 258 Makalapa Dr, Suite 100 Pearl Harbor, Hawaii 96860-3134		10. SPONSOR/MONITOR'S ACRONYM(S) NAVFAC PAC or NAVFAC Pacific			
		11. SPONSOR/MONITOR'S REPORT NUMBER(S)			
12. DISTRIBUTION / AVAILABILITY STATEMENT A - Approved for public release; distribution unlimited.					
13. SUPPLEMENTARY NOTES					
14. ABSTRACT The Department of the Navy has prepared an Environmental Assessment (EA) and determined that an Environmental Impact Statement is not required for the proposed waterfront improvements for Wharves K10-K11 at the Fleet Industrial Supply Supply Center, Pearl Harbor (FISC Pearl) in the Pearl Harbor Naval Complex, Oahu, Hawaii. Based on information gathered during preparation of the EA, the Department of the Navy finds that the proposed waterfront improvements for Wharves K10-K11 at the FISC Pearl, Oahu, Hawaii will not significantly impact human health or the environment. The Proposed Action is to modernize waterfront cargo operations at the FISC Pearl by upgrading and widening a portion of Wharves K10-K11. In order to provide adequate operational waterfront space for the upgraded wharves, the Proposed Action will require the demolition of an existing deteriorated waterfront transit storage/staging facility (Building 478) and the construction of a replacement facility further inland. Building 478 and Wharves K10-K11 are located within the boundaries of the U.S. Naval Base, Pearl Harbor National Historic Landmark (PHNHL) and are eligible for listing on the National Register of Historic Places as a contributing property to the PHNHL. The Proposed Action will have an adverse effect to contributing properties and the historic character of the PHNHL. The Navy has complied with the National Historic Preservation Act Section 106 and Section 110 by consulting with the State Historic Preservation Officer (SHPO) and affording the Advisory Council on Historic Preservation and other consulting parties the opportunity to comment, and executing a Memorandum of Agreement with the SHPO.					
15. SUBJECT TERMS Environmental Assessment, MCON, P-193, Waterfront Improvements for Wharves K10-K11, Pearl Harbor Naval Complex, Oahu, Hawaii					
16. SECURITY CLASSIFICATION OF: U - Unclassified			17. LIMITATION OF ABSTRACT	18. NUMBER OF PAGES	19a. NAME OF RESPONSIBLE PERSON
a. REPORT U	b. ABSTRACT U	c. THIS PAGE U	UU (Unclassified Unlimited)	56	Audrey Uyema Pak
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# ENVIRONMENTAL ASSESSMENT

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**Pearl Harbor Naval Complex**

**O'ahu, Hawai'i**

Department of the Navy

April 2004

DEPARTMENT OF DEFENSE  
DEPARTMENT OF THE NAVY

FINDING OF NO SIGNIFICANT IMPACT (FONSI) FOR ENVIRONMENTAL  
ASSESSMENT (EA) FOR MILITARY CONSTRUCTION NAVY (MCON) PROJECT P-193  
WATERFRONT IMPROVEMENTS FOR WHARVES K10-K11, FLEET AND INDUSTRIAL  
SUPPLY CENTER, PEARL HARBOR (FISC PEARL), OAHU, HAWAII

Pursuant to the Council on Environmental Quality regulations (40 CFR Parts 1500-1508) implementing the procedural provisions of the National Environmental Policy Act (NEPA), and the Chief of Naval Operations Instruction 5090.1B, the Department of the Navy gives notice that an EA has been prepared and an Environmental Impact Statement is not required for MCON Project P-193 Waterfront Improvements for Wharves K10-K11 at the FISC Pearl, Oahu, Hawaii.

The Proposed Action is to modernize waterfront cargo operations at the FISC Pearl by upgrading and widening a portion of Wharves K10-K11. The improvements will enable Wharves K10-K11 to support live loads, including loads from the rough terrain container handler and 140-ton (approximately 127-metric ton) mobile crane operations, and will also provide adequate operational staging area for containers and other military gear awaiting shipment. In order to provide adequate operational waterfront space for the upgraded wharves, the Proposed Action will require the demolition of an existing deteriorated waterfront transit storage/staging facility (Building 478) and the construction of a replacement facility further inland.

Alternatives evaluated include No Action and relocating FISC Pearl's waterfront operations to an alternate location at Pearl City Peninsula. The relocation alternative would reduce the efficiency of FISC Pearl's waterfront operations, incur significantly higher costs than the Proposed Action, and increase traffic and noise to the existing Navy family housing. Therefore, the relocation alternative was not selected. The No Action alternative was not selected because it would not achieve project objectives.

Building 478 and Wharves K10-K11 are located within the boundaries of the U.S. Naval Base Pearl Harbor National Historic Landmark (PHNHL) and are eligible for listing on the National Register of Historic Places as a contributing property to the PHNHL. Building 478 and Wharves K10-K11 are designated as Category III facilities (i.e., they possess sufficient historic significance to merit consideration in planning and decision making). They are located within the Naval Supply Historic Management Zone designated by the Integrated Cultural Resources Management Plan for Pearl Harbor Naval Complex dated March 2002.

The Proposed Action will have an adverse effect to contributing properties and the historic character of the PHNHL. The Navy complied with the National Historic Preservation Act (NHPA), Section 106 and Section 110 requirements of consulting with the State Historic Preservation Officer (SHPO) and affording the Advisory Council on Historic Preservation, the National Park Service and other consulting parties the opportunity to comment. The Navy and the SHPO executed a Memorandum of Agreement to conclude consultations pursuant to the NHPA's implementing regulations, 36 CFR Part 800. The Proposed Action is not expected to impact archaeological resources. The Navy will provide photographic records in accordance

with Historic American Building Survey/Historic American Engineering Record (HAER) standards to the SHPO. The Navy will complete “Overview Report and Photographs of the Development of Wharves” (HAER No. HI-53) and provide copies to the SHPO and any requesting consulting party after its submission to the National Park Service.

To mitigate adverse impacts, the new transit facility will be located on the footprint of a previously demolished building and will be similar to Building 478 in profile, scale and mass.

The Proposed Action and future projects proposed in FISC Pearl would collectively have the potential to adversely affect the historic character of the Naval Supply Zone and the PHNHL. Because the scopes of work for future projects is not known at this time, cumulative impacts on cultural resources from the Proposed Action and future projects cannot be assessed. Future projects would carry out separate consultations under Section 106 of the NHPA, including a separate environmental document under NEPA, as required.

The Proposed Action will include a program of probing and predrilling and the use of an impact hammer in lieu of a vibratory hammer during the wharf improvement construction to address the potential for ground settlement and distress identified by a geotechnical exploration of the project area. The Proposed Action will not increase the potential for soil liquefaction in the project area.

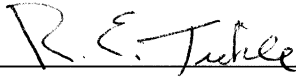
The Proposed Action would not result in significant impacts on the following resource areas: soils, topography, groundwater, air quality, noise, marine and terrestrial flora and fauna, traffic, utilities, drainage, hazardous and regulated materials, flood hazard, socio-economic factors and land use compatibility. Since the Proposed Action would not result in adverse effects on the resource areas described above, it is not expected to contribute to cumulative impacts on those resource areas, when evaluated in conjunction with other government and private past, present and “reasonably foreseeable future actions.” Best management practices, such as the use of silt curtains and floating rafts during in-water work, will be employed during construction to minimize/prevent environmental impacts during construction activities. Construction of the Proposed Action will require a Department of the Army permit in compliance with Section 10 of the Rivers and Harbors Act. The new security floodlights would be directed at a downward angle to minimize potential impacts to any migratory seabirds and shorebirds that may occasionally transit the area. The Proposed Action would have no effect on threatened and endangered species. The Proposed Action would not create environmental health and safety risks that may disproportionately affect children and minority or disadvantaged populations.

The Proposed Action is consistent with existing land use plans affecting FISC Pearl. The project area is not accessible to the public at large. The Navy has conducted an effects test and concluded that the Proposed Action would not have reasonably foreseeable direct and indirect effects on any coastal use or resource of the State’s coastal zone.

Based on information gathered during preparation of the EA, the Navy finds that the proposed MCON Project P-193 Waterfront Improvements for Wharves K10-K11 at FISC Pearl will not significantly impact human health or the environment.

The EA and FONSI prepared by the Navy addressing this Proposed Action is on file and interested parties may obtain a copy from: Commander, Pacific Division, Naval Facilities Engineering Command, 258 Makalapa Drive, Suite 100, Pearl Harbor, Hawaii 96860-3134 (Attention: Ms. Audrey Uyema Pak, ENV1831AUP), telephone (808) 471-9338. A limited number of compact disks are available to fill single unit requests.

4/13/04  
Dated

  
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Ronald E. Tickle  
Head, Operational Environmental Readiness  
and Planning Branch  
Environmental Readiness Division (OPNAV N45)

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## Cover Sheet

<b>Proposed Action</b>	The Proposed Action is to modernize waterfront cargo operations at the Fleet and Industrial Supply Center Pearl Harbor (FISC Pearl) in the Pearl Harbor Naval Complex (PHNC), O'ahu, Hawai'i.
<b>Type of Document</b>	Environmental Assessment
<b>Lead Agency</b>	Commander, Navy Region Hawaii
<b>For Further Information</b>	Ms. Audrey Uyema Pak, ENV1831AUP Environmental Planning Division Pacific Division, Naval Facilities Engineering Command 258 Makalapa Drive, Suite 100 Pearl Harbor, HI 96860-3134 Telephone: (808) 471-9338
<b>Summary</b>	<p>The Department of the Navy has prepared this Environmental Assessment in compliance with the National Environmental Policy Act of 1969 (42 United States Code §4321, et seq.), as implemented by the Council on Environmental Quality regulations (40 Code of Federal Regulations Parts 1500-1508) and Office of the Chief of Naval Operations Instruction 5090.1B CH-4, Environmental and Natural Resources Program Manual of June 4, 2003.</p> <p>The Department of the Navy proposes to modernize waterfront cargo operations at the FISC Pearl in the PHNC, O'ahu, Hawai'i. The improvements include upgrading and widening a portion of Wharves K10-K11 to support live loads and loads from the rough terrain container handler or similar and 140-ton (approximately 127-metric ton) mobile crane operations and providing adequate operational staging area for containers and other military gear awaiting shipment. In order to provide adequate operational waterfront space for the upgraded wharves, the Proposed Action will require the demolition of an existing deteriorated waterfront transit storage/staging facility (Building 478), and the construction of a replacement facility further inland.</p> <p>Alternatives considered include: relocating FISC Pearl's waterfront cargo operations and No Action.</p> <p>Building 478 and Wharves K10-K11 are located within the boundaries of the U.S. Naval Base, Pearl Harbor National Historic Landmark (PHNHL) and are eligible for listing on the National Register of Historic Places as a contributing property to the PHNHL. Building 478 and Wharves K10-K11 are designated as Category III facilities (i.e., they possess sufficient historic significance to merit consideration in planning, and decision making). They are located within the Naval Supply Historic Management Zone designated by the Integrated Cultural Resources Management Plan (ICRMP) for PHNC dated March 2002.</p> <p>The Proposed Action would have an adverse effect to contributing properties and the historic character of the PHNHL. The Navy has complied with the National Historic Preservation Act (NHPA) Section 106 and Section 110 by consulting with the State Historic Preservation Officer (SHPO) and affording the Advisory Council on Historic Preservation and other consulting parties the opportunity to comment, and executing a Memorandum of Agreement with the SHPO. The Proposed Action would not result in significant impacts on the following resource areas: soils, topography, groundwater, air quality, noise, marine and terrestrial flora and fauna, traffic, utilities, drainage, hazardous and regulated materials, flood hazard, socio-economic factors, and land use compatibility. The Proposed Action will not create environmental health and safety risks that may disproportionately affect children and minority or disadvantaged populations. The Navy has conducted an effects test and concluded that the Proposed Action would not have reasonably foreseeable direct and indirect effects on any coastal use or resource of the State's coastal zone; therefore, no further documentation is required.</p>



## TABLE OF CONTENTS

<b>LIST OF ACRONYMS .....</b>	<b>iii</b>
<b>1.0 PURPOSE OF AND NEED FOR ACTION.....</b>	<b>1-1</b>
1.1 Summary of Proposed Action.....	1-1
1.2 Purpose and Need.....	1-1
1.3 Regulatory Overview .....	1-3
1.3.1 National Environmental Policy Act.....	1-3
1.3.2 Historic Sites Act of 1935.....	1-3
1.3.3 Section 106 and Section 110, National Historic Preservation Act ..	1-3
1.3.4 Section 402, National Pollutant Discharge Elimination System.....	1-4
1.3.5 Coastal Zone Management Act .....	1-4
1.3.6 Clean Air Act.....	1-4
1.3.7 Section 10, Rivers and Harbors Act of 1899.....	1-5
1.3.8 Endangered Species Act .....	1-5
1.3.9 Magnuson-Stevens Fishery Conservation and Management Act..	1-5
<b>2.0 ALTERNATIVES INCLUDING THE PROPOSED ACTION .....</b>	<b>2-1</b>
2.1 Introduction.....	2-1
2.2 Analysis of Alternatives .....	2-1
2.2.1 Proposed Action .....	2-1
2.2.2 Relocation to Alternate Site .....	2-4
2.2.3 No Action .....	2-5
2.3 Environmental Effects of the Proposed Action and Alternatives .....	2-5
<b>3.0 AFFECTED ENVIRONMENT.....</b>	<b>3-1</b>
3.1 Overview.....	3-1
3.1.1 Kūāhūa Peninsula.....	3-1
3.1.2 Pearl City Peninsula .....	3-3
3.2 Cultural Resources .....	3-5
3.2.1 Regulatory Background .....	3-5
3.2.2 Historic Properties within the Pearl Harbor Naval Complex .....	3-5
3.2.3 Historic Properties in the Project Area (Kūāhūa Peninsula) .....	3-6
3.2.4 Historic Properties in the Alternate Site (Pearl City Peninsula) .....	3-8
<b>4.0 ENVIRONMENTAL CONSEQUENCES .....</b>	<b>4-1</b>
4.1 Overview.....	4-1
4.1.1 Proposed Action .....	4-1
4.1.2 Pearl City Peninsula Alternative .....	4-3
4.1.3 No Action .....	4-4
4.1.4 Cumulative Impacts .....	4-5
4.2 Cultural Resources .....	4-5
4.2.1 Regulatory Background .....	4-5
4.2.2 Proposed Action .....	4-6
4.2.3 Pearl City Peninsula Alternative .....	4-6
4.2.4 No Action .....	4-7
4.2.5 Cumulative Impacts .....	4-7

4.3	Possible Conflicts Between the Proposed Action and the Objectives of Federal Land Use Policies, Plans and Controls .....	4-7
4.3.1	Commander Navy Region Hawaii Regional Shore Infrastructure Plan Overview Plan .....	4-7
4.3.2	Coastal Zone Management Act .....	4-8
4.4	Relationship of Short-Term Uses and Long-Term Productivity .....	4-8
4.5	Irreversible and Irretrievable Commitments of Resources .....	4-9
4.6	Energy Requirements and Conservation Potential.....	4-9
4.7	Means of Mitigating Potentially Adverse Effects.....	4-11
<b>5.0</b>	<b>AGENCIES CONSULTED .....</b>	<b>5-1</b>
<b>6.0</b>	<b>REFERENCES.....</b>	<b>6-1</b>
<b>7.0</b>	<b>LIST OF PREPARERS .....</b>	<b>7-1</b>

## LIST OF FIGURES

### Figure

No.	Name	Page
1	Regional Location Map.....	1-2
2	Project Location Map.....	2-2
3	Proposed Site Plan.....	2-3
4	Pearl City Peninsula Alternative Project Area .....	2-6
5	Location of Historic Buildings .....	3-7

## LIST OF TABLES

### Table

No.	Name	Page
1	Summary of Environmental Effects of the Proposed Action and Alternatives....	2-7

## APPENDIX A            MEMORANDUM OF AGREEMENT

## LIST OF ACRONYMS

ACHP	Advisory Council on Historic Preservation
AT/FP	Anti-Terrorism/Force Protection
BMP	best management practice
CEQ	Council on Environmental Quality
CFR	Code of Federal Regulations
CNRH	Commander Navy Region Hawaii
CZMA	Coastal Zone Management Act
DDPH	Defense Distribution Depot Pearl Harbor
DoD	Department of Defense
EA	Environmental Assessment
ESQD	explosives safety quantity distance
FEMA	Federal Emergency Management Agency
FISC Pearl	Fleet and Industrial Supply Center Pearl Harbor
FONSI	Finding of No Significant Impact
HABS	Historic American Building Survey
HAER	Historic American Engineering Record
ICRMP	Integrated Cultural Resources Management Plan
IR	Installation Restoration
LRLUP	Long Range Land Use Plan
MHE	material handling equipment
MCON	military construction
MOA	Memorandum of Agreement
MTMC	Military Traffic Management Command
NAAQS	National Ambient Air Quality Standards
NAVFAC EFD Pacific	Pacific Division Naval Facilities Engineering Command
NEPA	National Environmental Policy Act
NHL	National Historic Landmark
NHPA	National Historic Preservation Act
No.	number
NPDES	National Pollutant Discharge Elimination System
NRHP	National Register of Historic Places
OPNAVINST	Chief of Naval Operations Instruction
PCBs	polychlorinated biphenyls
PHNC	Pearl Harbor Naval Complex
PHNHL	U.S. Naval Base, Pearl Harbor National Historic Landmark
POVs	privately-owned vehicles
RSIP	Regional Shore Infrastructure Plan
RTCH	rough terrain container handler
SAAQS	State Ambient Air Quality Standards
SDVT-One	SEAL Delivery Vehicle Team ONE
SEAL	Sea, Air, Land
SHPO	State Historic Preservation Officer
SPAWAR SYSACTPAC	Space & Naval Warfare Systems Activity Pacific
U.S.	United States
USC	United States Code
WWII	World War II

## **1.0 PURPOSE OF AND NEED FOR ACTION**

### **1.1 Summary of Proposed Action**

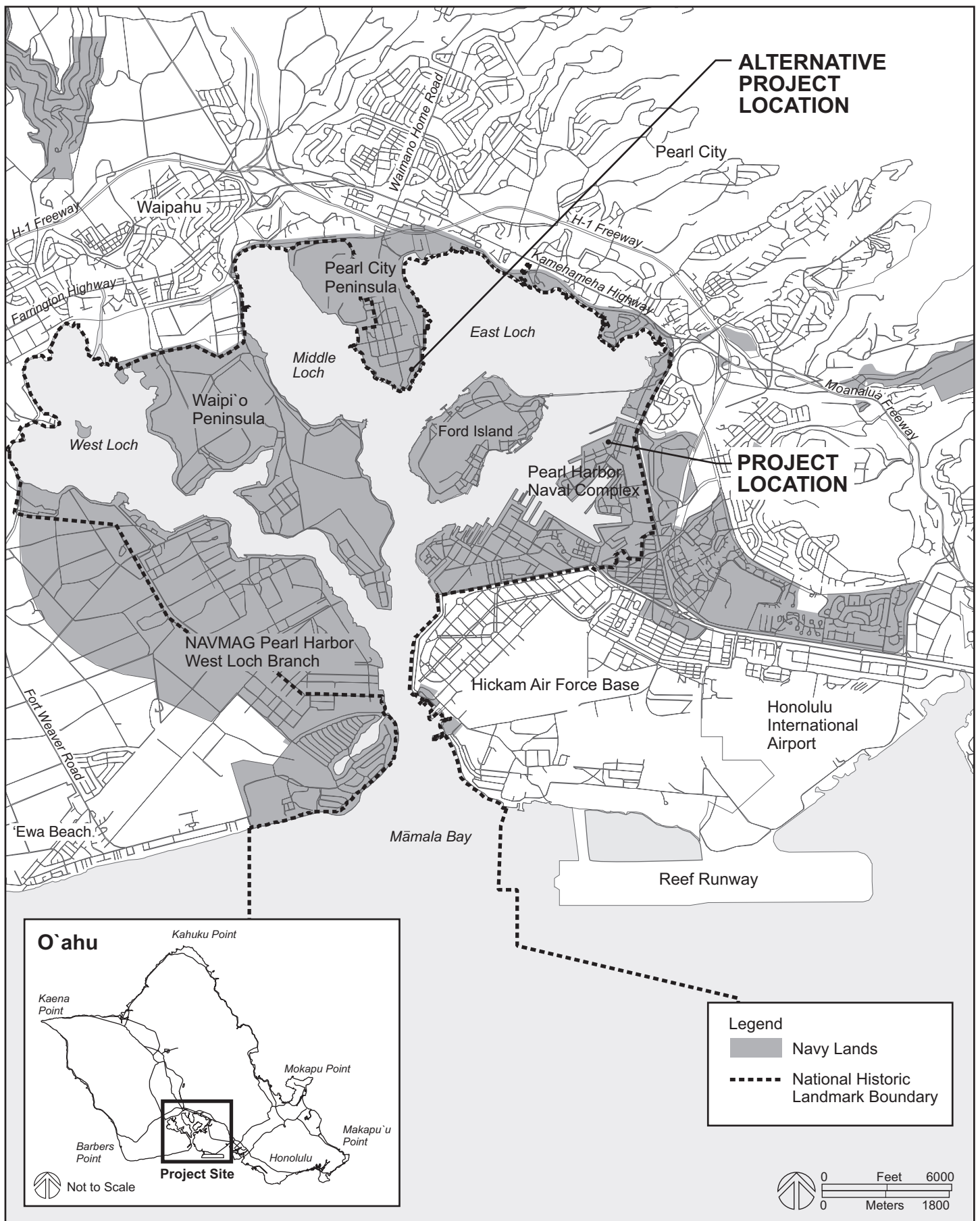
The Department of the Navy proposes to modernize waterfront cargo operations at the Fleet and Industrial Supply Center Pearl Harbor (FISC Pearl) in the Pearl Harbor Naval Complex (PHNC), O'ahu, Hawai'i (Figure 1). The improvements include upgrading and widening a portion of Wharves K10-K11 to support live loads and loads from the rough terrain container handler or similar (herein referred to "RTCH") and 140-ton (approximately 127-metric ton) mobile crane operations and providing adequate operational staging area for containers and other military gear awaiting shipment. In order to provide adequate waterfront space for the upgraded wharves, the Proposed Action will also demolish an existing deteriorated waterfront transit storage/staging facility (Building 478) and construct a replacement facility further inland.

### **1.2 Purpose and Need**

The purpose of the action is to provide adequate wharf capacity and storage/staging/load-out facilities at the FISC Pearl supply docks to modernize and allow the safe and efficient operation of cranes and heavy machinery in the transfer and movement of materials simultaneously, and to provide cover and protection for cargo awaiting transshipment. The project is needed to increase the limited staging area and load capacity of the existing Wharves K10-K11 to utilize the wharves' full operational capacity for optimization of FISC Pearl's logistic support to transient aircraft carriers and military sealift operations. The project is also needed to replace an existing deteriorated waterfront transit shed (Building 478) with a replacement transit shed further inland to accommodate the widening of the existing wharves.

The FISC Pearl Ocean Terminals Department delivers a wide-range of ocean, land and air logistics services to Department of Defense (DoD) operating forces in the mid-Pacific region. As the manager of the DoD Common-User Military Ocean Terminal, FISC Pearl's mission is to load and unload ships at the military terminal and to provide traffic management and terminal services for the movement of military supplies, vehicles and equipment through the Hawaiian Islands, Midway Island and Wake Island.

The wharves and transit facility must be capable of staging cargo and tactical small-arms munitions, vehicles and equipment for rapid loading onto arriving supply ships in support of high-tempo operations. The mission must be supported simultaneously with container and flat rack loading and unloading operations. Wharves K10-K11 are the only berths in the PHNC that are completely suited to providing logistic support to transient aircraft carriers and military sealift operations. However, the current wharves and transit facility are not capable of performing these functions at the required operational tempo. The narrow width of the existing Wharves K10-K11 requires labor-intensive and time-consuming staging operations involving tractor-trailers and cranes. The location of Building 478 limits a crane's operational clearance to 50 feet (approximately 16 meters) (the width of the wharf). These constrained working conditions endanger the safety of workers and the materials being transported or staged by limiting the operational clearance of material handling equipment. A single forklift operator operating a RTCH



**Regional Location Map**

**Figure 1**

**MCON Project P-193 Waterfront Improvements for Wharves K10-K11**  
 Environmental Assessment  
 O'ahu, Hawai'i

could replace much of the tractor-trailer and crane operations and improve efficiency and productivity.

The narrow width of the existing Wharves K10-K11 significantly impairs operations that provide logistic support to transient aircraft carriers and military sealift operations. A minimum wharf width of 135 feet (approximately 42 meters) is required to modernize and increase the efficiency of the waterfront operations.

Building 478 is currently vacant due to previous construction work at Wharf K10 and foundation settling (resulting in structural shoring, undulating roofline and formation of large floor cracks).

### **1.3 Regulatory Overview**

Various aspects of the Proposed Action are subject to regulatory constraints and requirements. The following is a discussion of the federal laws, permits, licenses and consultations that may be relevant to implementing the Proposed Action.

#### **1.3.1 National Environmental Policy Act**

This environmental assessment (EA) was prepared in compliance with the National Environmental Policy Act (NEPA) of 1969, 42 United States Code (USC) §4321, as implemented by the Council on Environmental Quality (CEQ) regulations, Title 40, Code of Federal Regulations Parts 1500-1508 (40 CFR Parts 1500-1508) and Chief of Naval Operations Instruction (OPNAVINST) 5090.1B CH-4, Environmental and Natural Resources Program Manual of June 4, 2003. It is intended to provide sufficient evidence and analysis for determining whether to prepare an Environmental Impact Statement or a Finding of No Significant Impact (FONSI). This EA analyzes the potential impacts of the Proposed Action and reasonable alternatives.

#### **1.3.2 Historic Sites Act of 1935**

The Historic Sites Act of 1935 (16 USC §461-467) establishes as a national policy the preservation of historic resources, including sites and buildings; and led to the establishment of the National Historic Landmarks program. The Act also forms the basis for the Historic American Building Survey/Historic American Engineering Record (HABS/HAER), a National Park Service program that establishes standards for, and conducts architectural and engineering documentation.

#### **1.3.3 Section 106 and Section 110 National Historic Preservation Act**

The National Historic Preservation Act of 1966 (NHPA) (as amended) (16 USC §470) was passed by Congress to recognize the nation's historic heritage and to establish a national policy for the preservation of historic properties. The NHPA created the National Register of Historic Places (NRHP). Section 106 of the NHPA requires Federal agencies to take into account the effects of undertakings on historic properties, such as the U.S. Naval Base, Pearl Harbor National Historic Landmark (PHNHL), and afford the Advisory Council on Historic Preservation (ACHP) a reasonable opportunity to comment on such undertakings. The Section 106 process, as defined in 36 CFR §800, provides for the identification and evaluation of historic properties, for determining the effects of

undertakings on such properties, and for developing ways to resolve adverse effects in consultation with consulting parties.

Building 478 and Wharves K10-K11 are resources eligible for the NRHP and are impacted by the Proposed Action.

Section 110 of the NHPA requires the Navy to minimize harm to the PHNHL and afford the ACHP the opportunity to comment on proposed undertakings within the National Historic Landmark (NHL). The Proposed Action will demolish a historic building and significantly alter the historic Wharves K10-K11.

#### 1.3.4 Section 402, National Pollutant Discharge Elimination System

Discharge of pollutants from point sources into surface waters of the United States (U.S.) is regulated under the National Pollutant Discharge Elimination System (NPDES) program pursuant to Section 402 of the Clean Water Act. The State of Hawai'i, Department of Health administers the NPDES program under Title 11, Chapter 55, Hawai'i Administrative Rules.

A NPDES permit issued by the State of Hawai'i, Department of Health will be required before discharges of storm water associated with construction activity for projects greater than one acre (0.4 hectare), discharges from construction dewatering, and/or discharges of hydrotesting water into state waters.

#### 1.3.5 Coastal Zone Management Act

The purpose of the Coastal Zone Management Act (CZMA) is to encourage states to manage and conserve coastal areas as a unique, irreplaceable resource. The CZMA states that land subject solely to the discretion of the Federal government, such as Federally owned or leased property, is excluded from the State's coastal zone. However, Federal activities that directly affect the coastal zone are to be conducted in a manner consistent with the State's Coastal Zone Management program to the maximum extent practicable. The proponent of the Navy action must conduct an effects test to determine whether the action will affect any coastal use or resource in a coastal State.

#### 1.3.6 Clean Air Act

The Clean Air Act sets national ambient air quality standards for sulfur dioxide, carbon monoxide, PM-10 (particulate matter with an aerodynamic diameter less than or equal to a nominal ten microns), nitrogen dioxide, lead, and ozone. The Clean Air Act regulates construction and operation of new stationary sources and modifications of existing stationary sources in its New Source Review program. This program is divided further into nonattainment and attainment area permitting requirements. Nonattainment areas require the permitting of all major pollution sources. Attainment areas require the installation of the best available control technology for all major sources and must fall within the next increment of degradation. Major pollution sources require an air quality permit before construction. The project area is within an attainment area.

### 1.3.7 Section 10, Rivers and Harbors Act of 1899

Section 10 of the Rivers and Harbors Act (33 USC 403) regulates structures or work in or affecting navigable waters of the U.S. The U.S. Army Corps of Engineers is authorized to issue permits for work or structures in navigable waters of the U.S.

### 1.3.8 Endangered Species Act

The Federal Endangered Species Act of 1973, 16 USC §§1531-1544, requires that any action authorized by a Federal agency be found not likely to jeopardize the continued existence of any threatened or endangered species or result in destruction or adverse impact of habitat critical to that species.”

### 1.3.9 Magnuson-Stevens Fishery Conservation and Management Act

The Magnuson-Stevens Fishery Conservation and Management Act, 16 USC §1801 *et seq.*, as amended by the Sustainable Fisheries Act (Public Law 104-297), established national standards for fishery conservation and management within the U.S. Exclusive Economic Zone. One of the purposes of the Act is to promote the protection of Essential Fish Habitat, which is defined as “those waters and substrate necessary to fish for spawning, breeding, feeding or growth to maturity.” An area within the designated Essential Fish Habitat that is particularly important and/or sensitive is a Habitat Area of Particular Concern. Regional Fishery Management Councils, established under the Act, are responsible for preparing and amending fishery management plans for each fishery under their authority that requires conservation and management.

The Hawaiian Islands are under the jurisdiction of the Western Pacific Regional Fishery Management Council, working in conjunction with the National Marine Fisheries Service to prepare and approve Fishery Management Plans for identified species. Western Pacific Regional Fishery Management Council has finalized and issued four amended Fishery Management Plans that designate Essential Fish Habitat and Habitat Area of Particular Concern as follows:

- Amendment 6 to the Bottomfish and Seamount Groundfish Fisheries Fishery Management Plan
- Amendment 8 to the Pelagic Fisheries Fishery Management Plan
- Amendment 10 to the Crustaceans Fisheries Fishery Management Plan
- Amendment 4 to the Precious Corals Fisheries Fishery Management Plan

The Magnuson-Stevens Fishery Conservation and Management Act requires that the National Marine Fisheries Service be consulted when a proposed Federal action may adversely affect an Essential Fish Habitat. All the waters around O’ahu have been designated Essential Fish Habitat, from the shore to depth of 1,312 feet (400 meters).



## 2.0 ALTERNATIVES INCLUDING THE PROPOSED ACTION

### 2.1 Introduction

This chapter presents a discussion of the Proposed Action, alternatives and the environmental consequences of the alternatives. The alternatives described below represent a range of reasonable alternatives. The Proposed Action and the alternatives are analyzed in terms of how well they meet the project objectives, as described in Chapter 1.

### 2.2 Analysis of Alternatives

The following alternatives were analyzed:

1. Proposed Action
2. Relocation of Waterfront Cargo Operations to Alternate Site
3. No Action

A comparison of the environmental impacts of the Proposed Action and alternatives considered are presented at the end of this chapter in Table 1.

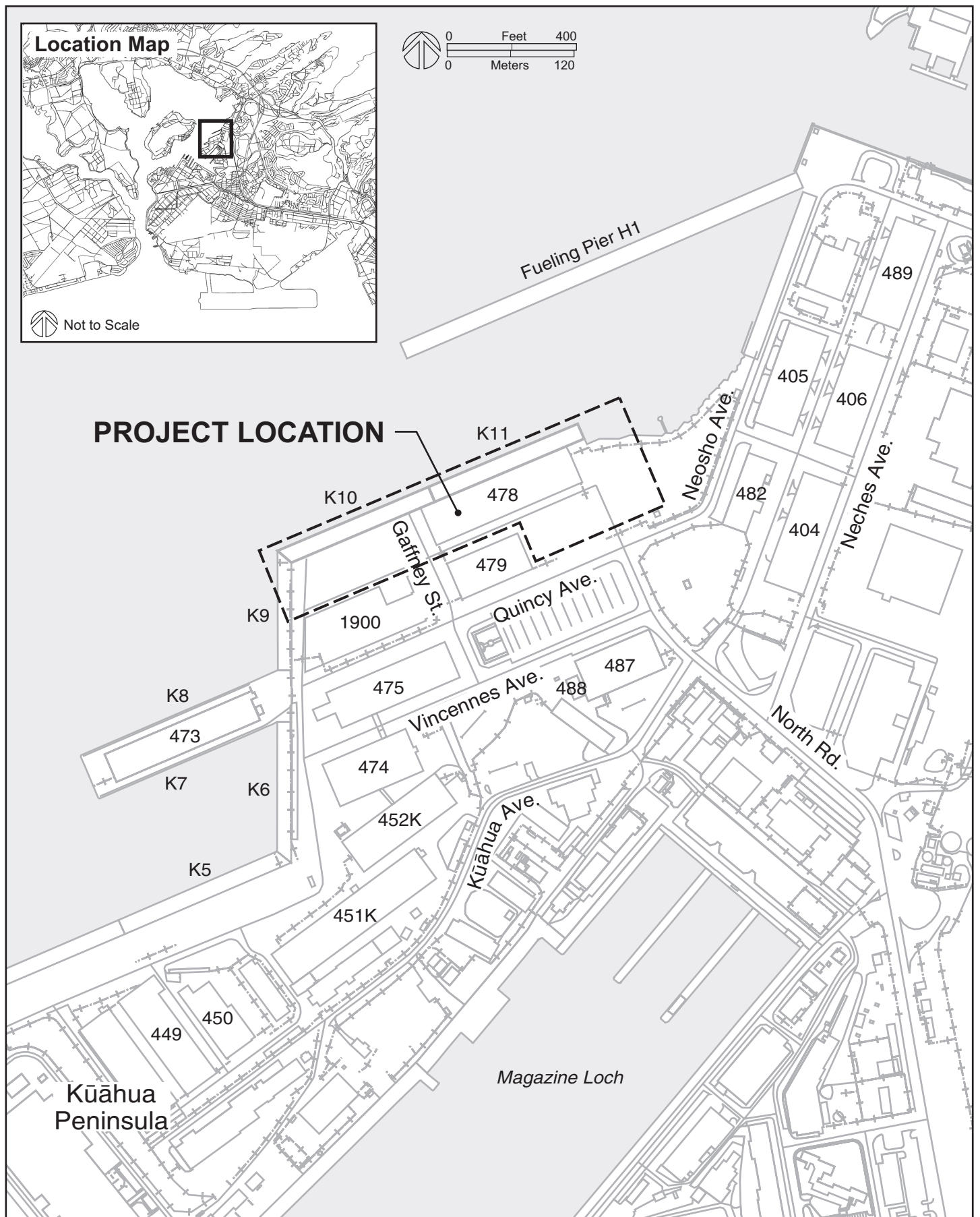
#### 2.2.1 Proposed Action

The Proposed Action is to modernize waterfront cargo operations under Military Construction (MCON) Project P-193 at the FISC Pearl Wharves K10-K11 in the PHNC, O'ahu, Hawai'i. Figure 2 shows the project location and Figure 3 shows the project's proposed site plan.

The Proposed Action includes a number of elements that are described below.

#### ***Wharves K10-K11 Improvements***

- Demolish 240 feet (approximately 73 meters) of Wharf K11, including the existing wharf deck and its supporting piles.
- Construct new reinforced concrete wharf on concrete piles adequate to support 1,000 pounds per square foot (47,880 pascal) live load, 140-ton (approximately 127-metric ton) crane and RTCH operations.
- The new wharf deck will have pre-cast concrete planks with concrete topping and cast-in-place concrete cap beams.
- The existing concrete sheet pile quay wall that protects the land behind the existing wharf will be left in place.
- A new steel sheet pile bulkhead will be added behind the landside of Wharves K10-K11 to protect the existing fill slope below and the backfill behind.
- Demolish existing 48,486-square foot (approximately 4,505-square meter) waterfront storage/staging facility (transit shed) (Building 478).



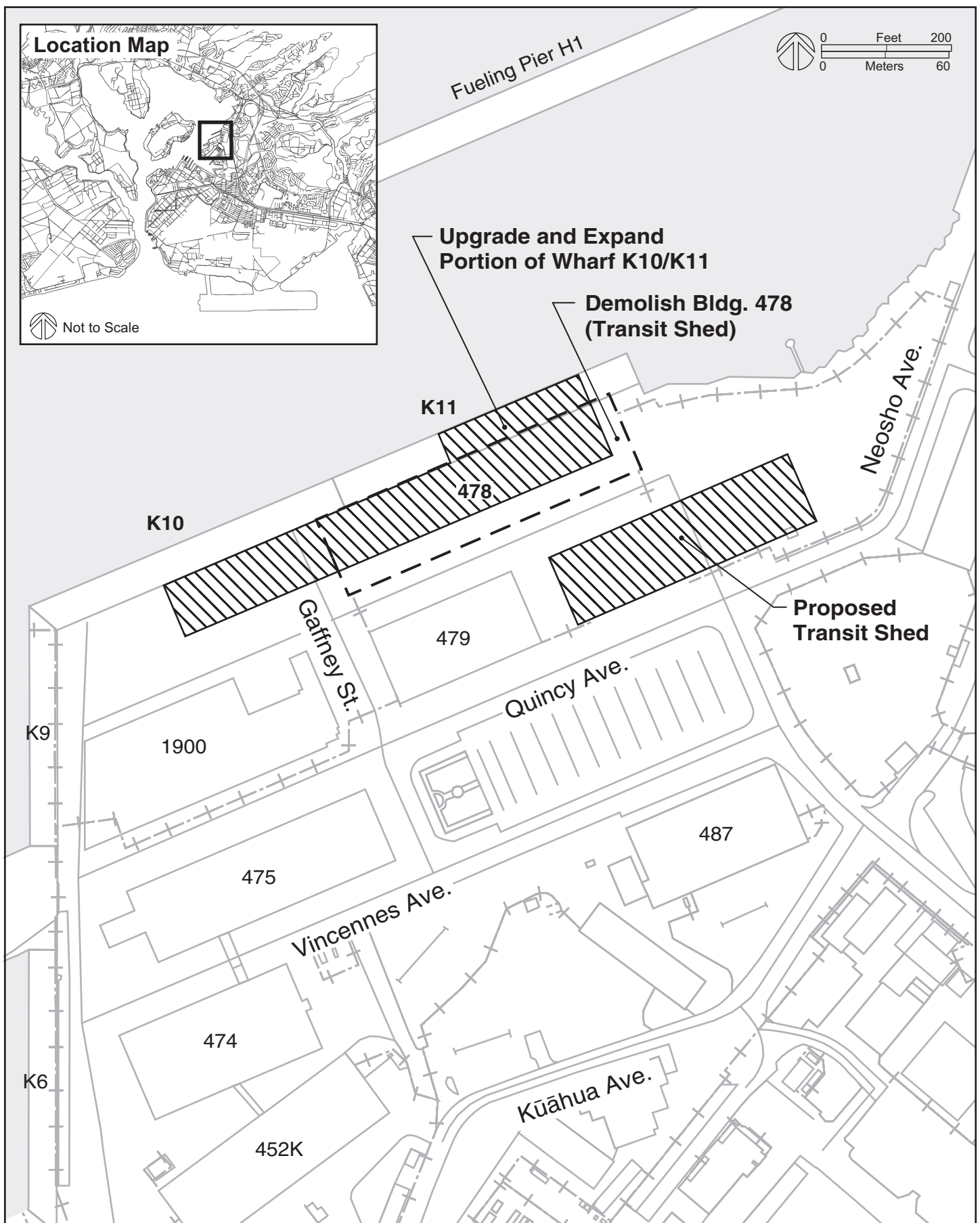
**Project Location Map**

**Figure 2**

**MCON Project P-193 Waterfront Improvements for Wharves K10-K11**

Environmental Assessment

O'ahu, Hawai'i



**Proposed Site Plan**

**Figure 3**

- Widen wharf by constructing 40-foot (approximately 14-meter) wide concrete, pile-supported relieving platform and 45-foot (approximately 14-meter) wide new concrete paving. The total wharf width will be 135 feet (approximately 42 meters), consisting of a 50-foot (approximately 16-meter) wide over-water, pile supported section; a 40-foot (approximately 13-meter) wide pile-supported relieving platform; and a 45-foot (approximately 14-meter) wide ground-supported concrete paving. The relieving platform and concrete hardstand behind will be designed for 1,000 pounds per square foot (approximately 4,882-kilogram per square meter) live load and wheel or outrigger load from a 25-ton (approximately 23-metric ton) forklift or a 50-ton (approximately 46-metric ton) mobile crane.

Dredging is not required in the project.

### ***New Wharf Transit Shed***

- Construct new, single-story steel frame transit shed with same area as Building 478 adjacent to Building 479.
- New wharf transit shed will have a metal roof deck, asphaltic concrete work deck, concrete and pile foundations, utility service, fire protection, cargo container loading docks, security cage, and a separate hazardous material storage area.
- Utility work will include relocation of water, drain and fuel lines, relocation of light poles and the addition of operational area lighting. Electrical service from Building 479, Station K4, will support the new transit shed.
- Pole-mounted, high-pressure sodium floodlights will be provided to illuminate the wharf operating area north of the new transit shed. These floodlights will be directed at a downward angle.
- A concrete driveway will connect the north end of the improved K11 wharf with the new transit shed.

The project will include anti-terrorism/force protection (AT/FP) construction minimum standards.

### **2.2.2 Relocation to Alternate Site**

This alternative involves relocating FISC Pearl's waterfront operations to an alternate site at Pearl City Peninsula in order to provide adequate wharf, storage and staging facilities for its cargo operations. In this alternative, Building 478 would be retained and revitalized.

The relocation alternative would involve the following:

- Construct new wharf to replace Wharves V3 and V4 (1,000 feet or approximately 305 meters long and 135 feet or approximately 42 meters wide).
- Construct replacement transit shed near V3 and V4.
- Create approximately 10 acres (approximately 40,468 square meters) of secured staging area. FISC Pearl currently has only about 10 acres (approximately 40,468 square meters) of existing cargo staging area dedicated for staging.
- Retain and revitalize Building 478.

This alternative would also include AT/FP construction minimum standards. This alternative would not require dredging.

Figure 4 indicates the general location of the improvements required in this alternative.

Although the Pearl City Alternative is not as efficient as the Proposed Action and has significantly increased costs, it would provide adequate facilities to perform modernized cargo operations and preserve a historic property that is a contributing property to the Landmark.

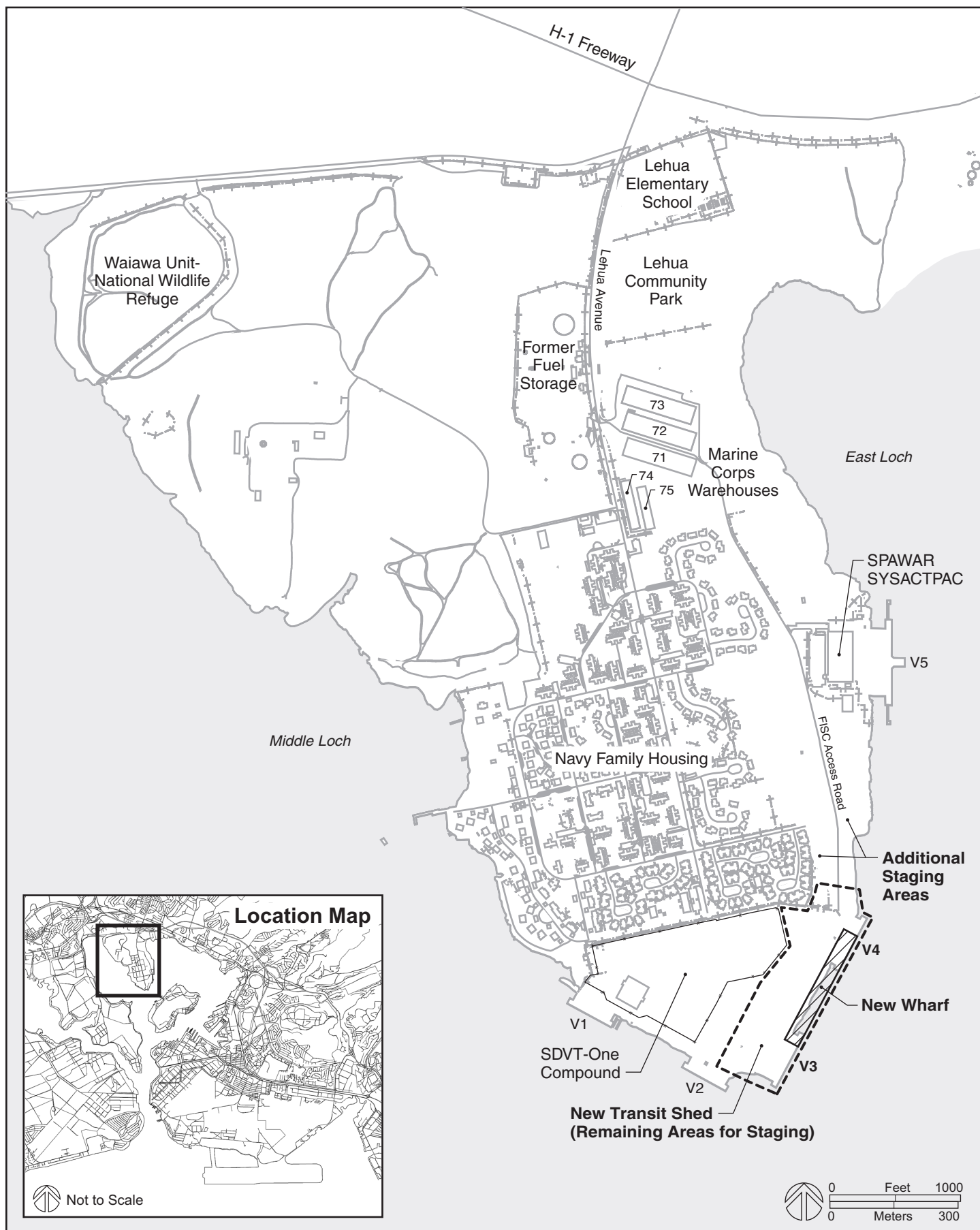
### 2.2.3 No Action

The No Action Alternative preserves the status quo and assumes that the inadequate waterfront facilities at Wharves K10 and K11 will remain, as well as Building 478. Under this alternative, FISC Pearl's waterfront operations would remain functioning at less than its potential capacity due to the load and clearance limitations at the wharves and the limited serviceability of Building 478, which was partially condemned for safety reasons.

Although the No Action Alternative will not achieve the purpose of the project, it was carried forward in the analysis as a benchmark to compare the magnitude of environmental effects of the alternatives including the Proposed Action.

## **2.3 Environmental Effects of the Proposed Action and Alternatives**

Table 1 summarizes the environmental effects of the Proposed Action and the reasonable alternatives and the mitigation measures for the Proposed Action. The information in the table is summarized from Chapter 4, Environmental Consequences. The Pearl City Peninsula Alternative is included in the analysis of environmental effects because it provides a reasonable alternative to the Proposed Action that could meet project objectives.



**Pearl City Peninsula Alternative Project Area**

**Figure 4**

MCON Project P-193 Waterfront Improvements for Wharves K10-K11

Environmental Assessment

O'ahu, Hawai'i



**Table 1**  
**Summary of Environmental Effects of the Proposed Action and Alternatives**

Resource Issue	Proposed Action (Kūāhua Peninsula)	Pearl City Peninsula Alternative	No Action
Cultural Resources	<p>Potential significant impacts without mitigation. Adverse effect on historic properties. No significant impacts on significant historic views. No impact on archaeological resources.</p> <p>Mitigation: The Navy concluded the Section 106 and Section 110 consultations in accordance with 36 CFR §800 by executing a Memorandum of Agreement with the State Historic Preservation Officer (SHPO) that stipulates ways to resolve, or mitigate, the adverse effects on historic properties.</p>	<p>Potential significant impacts without mitigation. Adverse effect on historic properties. No significant impacts on significant historic views. No impact on archaeological resources.</p> <p>Mitigation: Prior to implementation of the Pearl City Peninsula Alternative, the Navy shall initiate a separate consultation in accordance with 36 CFR §800 that stipulates ways to resolve, or mitigate, the adverse effects on historic properties.</p>	No impact.
Soils, topography, groundwater, air quality, noise, marine and terrestrial flora and fauna, traffic, utilities, drainage, hazardous and regulated materials, flood hazard, socio-economic factors, land use compatibility	<p>No long-term significant impact.</p> <p>Temporary impacts only related to demolition and construction (e.g., marine sediment resuspension, particulate matter, noise, traffic, removal of lead-based paint and possibly asbestos). The Proposed Action will have no effects on any threatened or endangered species under the Endangered Species Act and will have no effects on Essential Fish Habitat.</p>	<p>Temporary impacts related to demolition and construction (e.g., marine sediment resuspension, particulate matter, noise, traffic, potential soil remediation). Potential long-term increase in vehicular traffic resulting in local air and noise quality impacts. Increase in potable water, wastewater, and electrical demands. Potential noise and air quality impacts to children living in the area and attending nearby elementary school. The Pearl City Peninsula Alternative will have no effects on any threatened or endangered species under the Endangered Species Act and will have no effects on Essential Fish Habitat.</p>	No impact.

## 3.0 AFFECTED ENVIRONMENT

This chapter describes the environmental setting and baseline conditions of the environmental resources within the sites of the Proposed Action (Kūāhwa Peninsula) and alternative (Pearl City Peninsula).

### 3.1 Overview

The project area is located within the PHNC. The PHNC is located on the south shore of the island of O'ahu, Hawai'i (see Figure 1). Pearl Harbor is a natural estuary made up of three lochs, West Loch, Middle Loch and East Loch. The U.S. Navy controls much of the shoreline of Pearl Harbor, as well as access to the harbor (under Executive Order 8143, which established the Pearl Harbor Defensive Sea Area).

Analysis of a wide range of resource areas indicated that the Proposed Action or alternative will not affect or be affected by the following resource areas.

#### 3.1.1 Kūāhwa Peninsula

**Physical Conditions** (*soils, topography, groundwater, air quality, noise*). Soils at Kūāhwa Peninsula consist of mixed fill land, which generally consists of areas filled with material dredged from the ocean or nearby sources. Wharf K11 is built on a reclaimed area, offshore of the former shoreline of the former Kūāhwa Island. The area was filled around 1940 to form the present shoreline. The proposed waterfront transit shed site is proposed to be located in a reclaimed area that may straddle the shoreline of the former Kūāhwa Island. A geotechnical exploration study was conducted for the project area. At the wharf site, soil test borings indicate soil conditions are poor and consist of thick amounts of loose submerged fill material and soft and compressible harbor deposit underlain by stiff to hard alluvial and marine silt and clay. At the new transit shed, subsurface conditions generally consist of fill materials underlain by alluvial and marine deposits of silt, clay and sand. Below the alluvial and marine deposits, subsurface conditions consist of volcanic tuff underlain by very stiff to hard alluvial silt and clay. The loose fill material is prone to settlement as evident by the ground settlement and distress experienced to the surrounding wharf area during an earlier structural upgrade of Wharves K10-K11. In that construction process, vibratory equipment was used during the predrilling and installation of the wharf bearing piles. The geotechnical study identified the project area as having potential for soil liquefaction under a moderate size earthquake. This condition is common throughout the PHNC waterfront in areas reclaimed by filling with material dredged from the ocean or nearby sources.

The topography at the project area is relatively flat, with the existing pavement sloping toward the harbor. Ground elevations at the project area are less than 10 feet (approximately 3 meters) above sea level.

There are no potable water aquifers underlying the project area. The air in Hawai'i is relatively clean and low in pollutants. Based on air quality data collected and published by the State of Hawai'i Department of Health, Hawai'i complies with the standards of the Clean Air Act of 1970, as well as the National and the State Ambient Air Quality Standards (NAAQS/SAAQS) for carbon monoxide, nitrogen dioxide, sulfur dioxide, ozone, particulate matter, and lead. The existing noise environment is characterized by



material handling equipment; trucks, vans and other large transport vehicles; and ships docked at nearby berths. There are no noise sensitive areas, such as schools and residential areas, on Kūāhua Peninsula.

**Biological Resources** (*marine and terrestrial flora and fauna*). Kūāhua Peninsula is predominately industrial. There are no resident Federally or State listed threatened, endangered or candidate marine species in the project area; however, the green sea turtle may occasionally transit the inner lochs of Pearl Harbor. There are no Federally or State listed threatened, endangered or candidate terrestrial flora and fauna in the project area. The waters within Pearl Harbor have been designated as an Essential Fish Habitat; however, there are no areas within Pearl Harbor that have been designated as Habitat Areas of Particular Concern. There are no coral reefs within Pearl Harbor.

**Infrastructure** (*utilities, storm drainage, traffic*). The project area is served by existing water, wastewater, electrical, and storm drainage systems in accordance with applicable State and Federal regulations. Vehicular traffic in the area is primarily made up of material handling equipment, flatbed trucks, small vans and pickup trucks involved in cargo operations at the wharves. The main vehicle and pedestrian access to Wharves K10-K11 and Building 478 is from the main wharf access gate on Gaffney Street. Privately-owned vehicles (POVs) are parked in an existing FISC Pearl parking lot on Quincy Street, across Building 479.

**Health and Safety** (*hazardous and regulated materials, flood hazard*). There are no Installation Restoration (IR) program sites in the project area. There is asbestos-containing floor tile in Building 478. Lead was also identified in painted surfaces of the building. Polychlorinated biphenyls (PCBs) may also be present in light ballasts within Building 478. Building 479 is adjacent to the proposed transit shed site and contains a transformer in its northeast corner. PCBs were found in soil and concrete pad samples collected from the area, which has been identified for further investigation. However, this area appears to be outside the project area. Since nuclear-powered vessels may have docked at Wharves K10-K11, a radiological “free release” survey is required prior to disposing demolition debris in a landfill.

The project area is in Zone D (undetermined flood hazard) on Federal Emergency Management Agency (FEMA) Flood Insurance Rate Maps.

**Socio-Economic Factors** (*population; employment; effects on children, disadvantaged and minority populations*). In 2000, the population of the City and County of Honolulu (in which the project area is located) was 876,156 (U.S. Department of Commerce, 2003). There were 8,654 active-duty, shore-based Navy personnel and 14,030 Navy family members in Hawai‘i in 2002 (State of Hawai‘i, 2003, Table 10.07). In 2002, there was an average of 412,450 nonagricultural jobs in the City and County of Honolulu (State of Hawai‘i, 2003, Table 12.14). In 2002, there were about 8,925 direct hire Navy civilian jobs in Hawai‘i (State of Hawai‘i, 2003, Table 10.07). Because the project area is located within a Navy waterfront industrial area, access to it is restricted to Navy personnel and contractors. Members of the general population, who may include children and minority or low-income populations, do not frequent the project area.

**Land Use Compatibility**. The project area is located within the FISC Pearl compound at Kūāhua Peninsula. The primary land use in the FISC Pearl compound is industrial,

consisting of supply and waterfront operations. The project area is in close proximity to the PHNC Hālawā Gate, which is the only access to the PHNC main base waterfront area that is available for use by delivery and cargo trucks. Building 478 and Wharves K10-K11 are partially encumbered by the existing 100-foot (approximately 31-meter) radius explosives safety quantity distance (ESQD) arc established for Wharves K10-K11 for handling of small-arms munitions.

### 3.1.2 Pearl City Peninsula

Pearl City Peninsula is about 4.5 miles (approximately 8 kilometers) from the PHNC main base and about 10 miles (16 kilometers) from downtown Honolulu. The Pearl City business district is located north of the peninsula. Lehua Avenue, a two-lane roadway that generally follows a north-south axis through the peninsula, is the only vehicular access route connecting Pearl City Peninsula to the regional roadway system.

**Physical Conditions** (*soils, topography, groundwater, air quality, noise*). Similar to the project area, the Pearl City Peninsula site is on fill land, with soils consisting of mixed fill land. The site is generally flat, with little variation in topography. Ground elevations vary from five to ten feet (1.5 to 3 meters) above mean sea level. The alternate site is not located over a source of drinking water. The Pearl City Peninsula site is also in compliance with the air quality standards of the Clean Air Act of 1970, as well as NAAQS/SAAQS for carbon monoxide, nitrogen dioxide, sulfur dioxide, ozone, particulate matter, and lead. The existing noise environment consists primarily of vehicle movements along Lehua Avenue and FISC Pearl Access Road, construction and other operations at the SEAL (Sea, Air, Land) Delivery Vehicle Team ONE (SDVT-One) compound, ships berthed at Wharf V5, and passing watercraft.

**Biological Resources** (*marine and terrestrial flora and fauna*). There is little vegetation within the Pearl City Peninsula site. There are no resident Federally or State listed threatened, endangered or candidate marine species in the project area; however, the green sea turtle may occasionally transit the inner lochs of Pearl Harbor. There are no Federally or State listed threatened, endangered or candidate terrestrial flora and fauna in the project area. The waters within Pearl Harbor have been designated as an Essential Fish Habitat; however, there are no areas within Pearl Harbor that have been designated as Habitat Areas of Particular Concern. There are no coral reefs within Pearl Harbor.

**Infrastructure** (*utilities, drainage, traffic*). Pearl City Peninsula is served by existing potable water, wastewater, electrical and storm drainage systems in accordance with applicable State and Federal regulations; however, there is no existing wastewater system serving the alternate project area near Wharves V3 and V4. Vehicular access to Pearl City Peninsula is provided through the intersection of Kamehameha Highway with Lehua Avenue and Waimano Home Road. From Lehua Avenue, the alternate site is accessed via FISC Pearl Access Road, which traverses the Marine Corps warehouse area. This road also serves the Space & Naval Warfare Systems Activity Pacific (SPAWAR SYSACTPAC) compound near Wharf V5 and SDVT-One compound near Wharf V1. In the mornings and early afternoons, vehicular traffic on Lehua Avenue near Lehua Elementary School is heavy with parents dropping off or picking up children, and many parked cars and pedestrians on either side of Lehua Avenue.

**Health and Safety** (*hazardous and regulated materials, flood hazard*). The Pearl City Peninsula site contains several facilities, associated with fuel distribution, that are potential sources of subsurface contamination. They include a former underground storage tank (UST-PCP-1), an abandoned aviation/motor gasoline pipeline distribution system and an out-of-service, multi-petroleum product, five-pipeline distribution system connecting Wharves V3 and V4 to the former fuel storage area on Lehua Avenue, and valve boxes at V3 and V4. The Navy has identified several of these facilities for further investigation to determine if releases of petroleum products have occurred in subsurface soils or groundwater. The Navy has a separate project to clean and abandon the fuel pipelines regardless of whether or not they are listed as abandoned (i.e., they will be opened, cleaned to gas-free condition, inerted and closed for abandonment). Because leaded fuels were pumped through the distribution system, lead is also a contaminant of concern.

The alternate site is located in Zone D (undetermined flood hazard) on FEMA Flood Insurance Rate Maps.

**Socio-Economic Factors** (*population; employment; effects on children, disadvantaged and minority populations*). The alternate site at Pearl City Peninsula is also located within the City and County of Honolulu. The population and employment characteristics of the City and County of Honolulu are described above in Section 3.1.1. Like the proposed project area, access to the alternate site is restricted to Navy personnel and contractors. Members of the general population, who may include children and minority or low-income populations, do not frequent the project area. However, there are Navy family housing units and a public elementary school (Lehua Elementary School) adjacent to the two-lane vehicular route between the alternate site and regional transportation facilities.

**Land Use Compatibility.** Major land uses at Pearl City Peninsula include Navy family housing and community support, SDVT-One (operations), SPAWAR SYSACTPAC (communications/information technology), former FISC Pearl fuel storage, open space and special management areas (e.g., wildlife refuge, wetlands). The State of Hawai'i's Lehua Elementary School is at the northeast end of the peninsula, adjacent to the City and County of Honolulu's Lehua Community Park. The area proposed for the alternate site is adjacent to operational, waterfront and family housing land uses.

Wharves V3-V4 were formerly used as fueling piers. This use was discontinued in 2001. The southern tip of the peninsula, including Wharves V1-V2, was formerly used for military staging and deployments. This use ceased with the development of the SDVT-One compound. In the long term, CNRH's land use plans identify the southern tip of the peninsula for operations. In this alternative, the replacement transit shed facility is sited in this area, between the SDVT-One compound and Wharves V3-V4. CNRH's development plan for the peninsula includes expanded development of family housing, especially on the eastern side of the peninsula. In this alternative, the required 10 acres (4 hectares) of staging area are located inland of Wharves V3-V4 and slightly north of V-4, on either side of FISC Access Road. The staging areas along FISC Access Road are adjacent to existing and planned Navy family housing areas. A 100-foot (approximately 31-meter) radius ESQD arc would be established for Wharves V3-V4 for handling of small-arms munitions. The replacement transit shed would be sited outside this arc.

## 3.2 Cultural Resources

### 3.2.1 Regulatory Background

The NHPA recognizes the nation's historic heritage and establishes a national policy for the preservation of historic properties. It established the NRHP and defines *historic property* as "any prehistoric or historic district, site, building, structure, or object included in, or eligible for inclusion on the National Register..." (16 USC §470w). Section 106 of the NHPA and its implementing regulations (36 CFR §800) require the Navy, as a Federal agency, to consider the effects of proposed undertakings on historic properties, to afford the ACHP the opportunity to comment, and to implement measures to minimize or mitigate the adverse effects of their undertakings on historic properties. Subsection 110(f) of the NHPA also requires federal agencies to minimize harm to NHLs and to afford the ACHP an opportunity to comment on proposed undertakings within it.

### 3.2.2 Historic Properties within the Pearl Harbor Naval Complex

The U.S. Navy established Pearl Harbor Navy Yard in 1908 and has maintained a critical and historically-significant presence in the area around Pearl Harbor since that time. In fact, the U.S. Naval Base, Pearl Harbor was designated as a NHL (Historic Sites Act of 1935) in 1964 because the U.S. possession of Pearl Harbor "and the development of a naval base and headquarters there after 1898 [annexation] were important factors in the rise of U.S. Naval power in the Pacific." The Naval Base's NHL status also rests upon its central role in World War II (WWII), and its particular significance with regard to the Japanese attack on Pearl Harbor and Ford Island on December 7, 1941, which precipitated the entry of the United States into WWII. Lying within FISC Pearl, the project area falls within the PHNHL boundary.

The 1974 update to the NRHP NHL nomination form specifically acknowledges that changes are necessary for the naval base to modernize and keep up with innovations in naval technology. Physical changes occurring since 1902 have been a continuing process, are a necessary attribute of Pearl Harbor as an active naval base, and are a basic quality of Pearl Harbor's national significance. Thus, Pearl Harbor's continuing mission outweighs its physical qualities for qualification as a NHL. Navy-directed physical change is necessary, normal and expected to further its mission.

To help ensure that historic and cultural preservation concerns are properly considered within the Navy's decision-making processes for properties within and beyond the PHNHL, Commander Navy Region Hawaii (CNRH) completed an Integrated Cultural Resources Management Plan (ICRMP) for the PHNC in March 2002. Encompassing a study area slightly larger than the PHNHL, the ICRMP utilizes a cultural landscape approach to develop major, interpretive themes and twelve historic management zones, where those themes are physically represented. Focusing on these zones, the ICRMP identifies character-defining features, categorizes historic properties by preservation

priority<sup>1</sup>, and offers planning guidelines for treatment. The project area lies within the ICRMP Naval Supply historic management zone (Figure 5).

### 3.2.3 Historic Properties in the Project Area (Kūāhua Peninsula)

#### ***Historic Resources***

Historic facilities at the Naval Supply zone represent the significance of Pearl Harbor as a supply point during WWII. Kūāhua Peninsula, which used to be an island until the fishpond Loko Kunana was filled between 1940-1943, was one major area of warehouses, wharves and pier construction at Pearl Harbor. Existing historic facilities include the supply wharves, piers (K7/K8), warehouses, transit sheds, storehouses, the headquarters building, a former torpedo storage and overhaul facility, a former packing plant, a weighing facility, a fallout shelter, and a former terminal/cafeteria building.

The ICRMP also identifies the Bauernschmidt Plaza, located between Facilities 475 and 479 (Figure 5), as a contributing cultural landscape feature to the Naval Supply zone. It contains a flagpole, a memorial plaque, benches, display guns, and anchors.

The project area includes Wharves K10 and K11 and Building 478. Built in 1943 as part of the major transformation of Kūāhua Island, supply Wharves K10 and K11 are designated as Category III facilities. MCON Project P-138, which was completed in June 2003, upgraded portions of Wharves K10 and K11. This upgrade removed all timber fenders along the entire length (approximately 1,000 feet or 305 meters) of Wharves K10 and K11 and replaced a major portion with pre-stressed concrete fender piles and foam-filled fenders to protect the vessels in berthing. Additional upgrade also included a new concrete deck supported by concrete cap beams atop pre-stressed concrete piles.

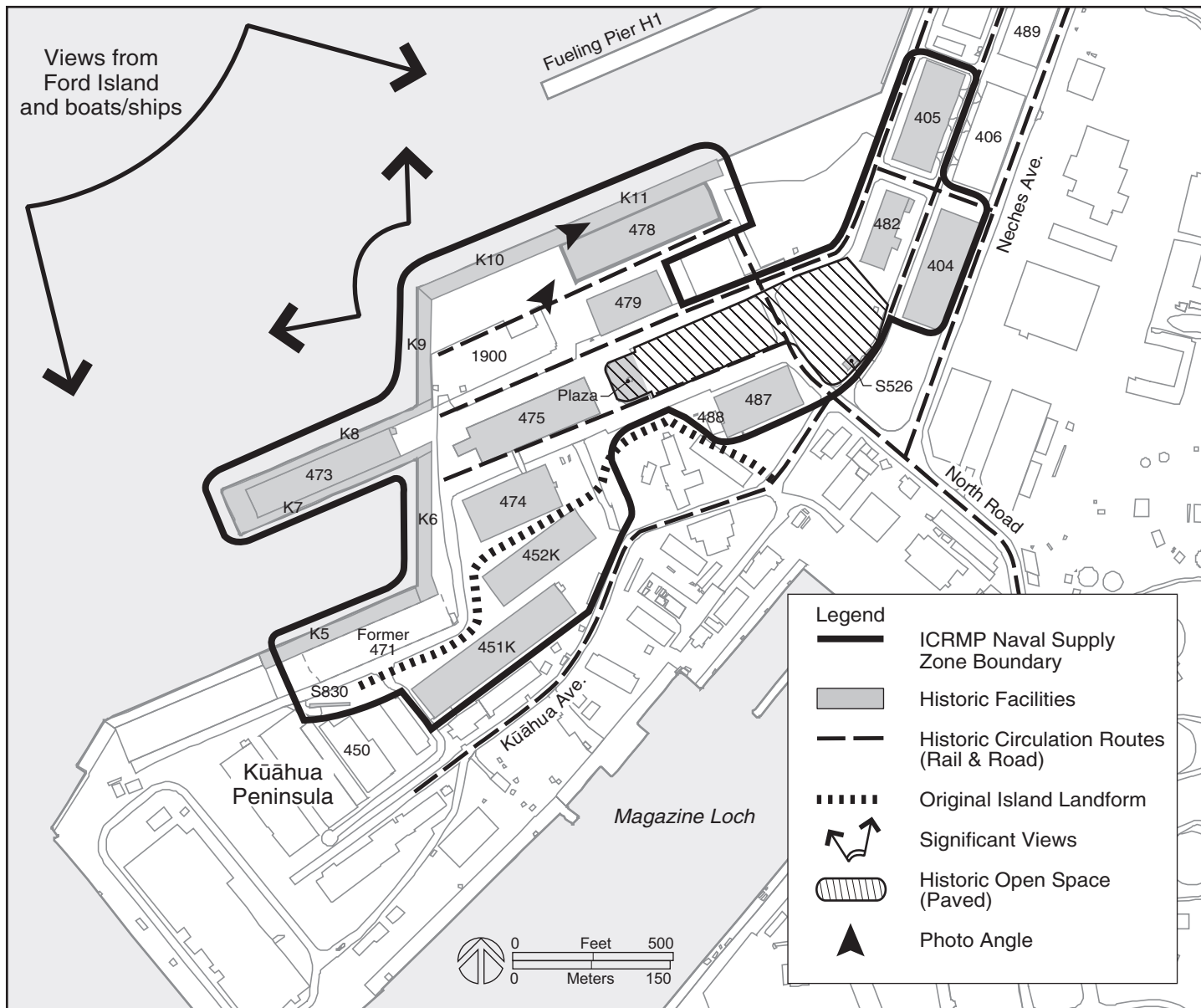
Building 478, built at the same time as the supply wharves, is a waterfront transit shed. It is a one-story slab-on-grade structure. It has a slightly pitched gable roof with overhanging eaves, wood roof trusses, wood-framed and board-and-batten exterior siding. The transverse section has a 20-foot (approximately 6-meter) wide cantilevered roof. There are open bays on the cantilevered, waterfront side (Figure 5). Building 478 is designated as a Category III facility.

#### ***Historic Views***

The most expansive views of the Naval Supply zone are from the water (Figure 5). Due to their height, the four-story warehouse (Building 479) and the six-story warehouse/office building (Building 475) are visually prominent from the harbor waters, Ford Island, the Arizona Memorial, and the Admiral Clarey Bridge. The long, lower

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<sup>1</sup> The 2000 Pearl Harbor Cultural Resources Management Plan defines historic categories as follows: I = aspects of the built environment that possess major historic significance and are worthy of long-term preservation; II = possess sufficient historic significance to merit consideration for long-term preservation, but do not meet the criteria for assignment to Category I; III = possess sufficient historic significance to merit consideration in planning and decision making, but are not assignable to Category II; IV = do not possess sufficient historic significance or are lacking in importance and are not eligible for the NRHP.



Building 478 interior.



Building 478 from Wharf K11.

## Location of Historic Buildings

Figure 5

### MCON Project P-193 Waterfront Improvements for Wharves K10-K11

Environmental Assessment

O'ahu, Hawai'i

buildings along the edge of the waterfront, such as Building 478, are also important foreground buildings for views from the water.

### ***Archaeological Resources***

Historical maps and other sources indicate that there were once as many as 25 ponds at Pearl Harbor, 20 of which appeared to lie wholly or partially within the boundaries of the PHNC. None of these fishponds are located within the proposed project area. Building 478 and Wharves K10 and K11 were built over fill land. The new transit shed will be constructed also on fill land.

Adjacent to the project site is Loko Kunana, a large fishpond that was filled in when Kūāhua Island was connected to the main base. Loko Kunana lies to the south and east of the proposed project area.

#### **3.2.4 Historic Properties in the Alternate Site (Pearl City Peninsula)**

Only a small portion of the Pearl City Peninsula retains historic integrity to be considered and managed as a historic zone. The ICRMP's Pearl City Peninsula zone encompasses a small grouping of historic housing (1920s – 1940s), the only remaining structure associated with the Pearl Harbor Yacht Club, and a narrow portion of the shoreline along the west edge of the peninsula. The alternate site is outside of the ICRMP Pearl City Peninsula zone.

### ***Historic Resources***

The alternate site at Pearl City Peninsula is largely located on fill land, which was filled at the same time as the in-filling of Loko Weloko (a fishpond on the east side of the peninsula) in 1942. At the site of Loko Weloko, a warehouse and a storage building, as well as a 1,880-foot (approximately 573-meter) timber wharf, were built to serve the Pearl City Provisions Annex. None of these facilities from WWII remain today.

In addition to the infilling of Loko Weloko, the southern and eastern shorelines were filled with dredged material and a pointed, rather than a rounded, tip was created by the construction of four aircraft carrier wharves in 1945. Two of these four wharves (V3 and V4) are located in the alternate site. These wharves were built as part of the Pearl City Fuel Annex for the berthing of carriers that needed refueling. They are all identical in construction, irregular in plan and shaped like a backwards letter "E." Designated as Category III structures, these wharves have concrete decks, with concrete curbs on concrete pile foundations. There are metal bollards and cleats on top of the decks.

### ***Historic Views***

From the alternate site, there are expansive views to the East Loch and to the northern edge of Ford Island.

### ***Archaeological Resources***

As mentioned above, the alternate site is located largely on fill land. A small portion is located over the filled fishpond, Loko Weloko. Archaeological investigations identified deposits associated with the fishpond to be buried in about 12 feet (approximately 4

meters) of fill material. Radiocarbon dating of samples from these deposits indicates fishpond use occurred between the 1550s and early 1800s.



## 4.0 ENVIRONMENTAL CONSEQUENCES

### 4.1 Overview

This chapter evaluates the probable direct, indirect, short term, long term and cumulative impacts of the Proposed Action and two alternatives (Pearl City Peninsula Alternative and No Action) on relevant environmental resources.

Cumulative impacts on environmental resources result from the incremental effects of development and other actions when evaluated in conjunction with other government and private past, present and “reasonably foreseeable future actions.” The analysis of cumulative impacts was done on a qualitative basis and includes the implementation of MCON Project P-202 Construct Deployment Staging and Consolidate Warehouses, which will construct deployment cargo staging areas on Kūāhewa Peninsula near the P-193 project area. To create the staging areas, the project may demolish four warehouses (Buildings 404, 405, 406 and 489) and four buildings (Buildings 482, 450, 487 and 488) and construct a consolidated, high-density warehouse to replace the four warehouses. The analysis of cumulative impacts also includes implementation of CNRH’s land use plan for Pearl City Peninsula.

Analysis of a wide range of resources indicated that the Proposed Action and alternatives are unlikely to affect or be affected by the environmental resources listed below in sections 4.1.1 and 4.1.2.

#### 4.1.1 Proposed Action

**Physical Conditions** (*soils, topography, groundwater, air quality, noise*). The Proposed Action would not involve changes to existing topography. A geotechnical exploration has been completed for the project area. The study identified the following geotechnical concerns for the wharf site including (1) potential for ground settlement and distress due to the presence of soft, loose deposits at the mudline and variable subsurface condition and (2) marginal stability of existing underwater slope. In order to address these concerns, the Proposed Action will include a program of probing and predrilling for installation of the wharf and the use of an impact hammer in lieu of a vibratory hammer when installing the new bearing piles and sheet pile bulkhead. The Proposed Action will not increase the potential for soil liquefaction in the project area or elsewhere in the PHNC waterfront. Since there are no potable water aquifers underlying the project area, the Proposed Action would not impact drinking water sources. There would be short-term, temporary air and noise quality impacts associated with construction. No significant impacts to air or noise quality are expected. The Proposed Action is not expected to require a modification to the existing PHNC air quality permit. Construction of the Proposed Action will require a Department of the Army permit in compliance with Section 10 of the Rivers and Harbors Act which regulates structures or work in or affecting navigable waters of the U.S.

**Biological Resources** (*marine and terrestrial flora and fauna*). Short-term, temporary impacts to the marine environment would include sediment resuspension during demolition and reconstruction of portions of Wharves K10-K11. The construction contractor will use best management practices (BMPs) to minimize/prevent environmental impacts during construction activities. Such BMPs include the use of silt

curtains during in-water work and floating rafts as catchment devices to prevent debris and/or material from falling into the water. There are no resident Federally or State listed threatened, endangered or candidate marine species in the project area. If a green sea turtle enters an active construction area, construction activities will cease and resume only after the animal voluntarily departs from the active construction area. There are no Federally or State listed threatened, endangered or candidate terrestrial flora and fauna in the project area. Therefore, there will be no effects on any threatened or endangered species. There are no coral reefs within Pearl Harbor and no Essential Fish Habitat will be affected because there are no potentially sensitive and important zones identified as Habitat Areas of Particular Concern areas within or immediately adjacent to Pearl Harbor. Security floodlights would be directed at a downward angle as a BMP to minimize potential impacts to any migratory seabirds and shorebirds that occasionally may be transiting the area. The Proposed Action is not expected to result in the discharge of storm water, construction dewatering effluent or hydrotesting water into State waters. As such, a NPDES permit for the Proposed Action is not anticipated to be required; however, if there is a discharge, coverage under the applicable NPDES General Permit will be obtained.

**Infrastructure** (*traffic, utilities, drainage*). Except during the construction period, the Proposed Action would not increase vehicular traffic traveling to or within the PHNC. The Proposed Action would use existing infrastructure systems and not require any upgrades to the systems. The Proposed Action would not result in a net increase in utility demand.

**Health and Safety** (*hazardous and regulated materials, flood hazard*). If regulated or hazardous materials are present in disturbed soil or demolition debris, they will be removed, handled and disposed of in accordance with applicable State and Federal regulations. A radiological “free release” survey will be conducted for Wharves K10-K11 prior to demolition. The Proposed Action would comply with Executive Order 13148, Greening the Government Through Leadership in Environmental Management, which contains requirements and goals for federal agencies to meet in the following areas: environmental management; environmental compliance; right-to-know and pollution prevention; release and use reductions of toxic chemicals and hazardous substances; reductions in ozone-depleting substances; and environmentally beneficial landscaping.

Since the Proposed Action is located in Zone D (undetermined flood hazard) as designated on FEMA Flood Insurance Rate Maps, compliance with federal floodplain management policies is not required.

**Socio-Economic Factors** (*population; employment; effects on children, disadvantaged and minority populations*). The Proposed Action would not impact long-term population or employment levels in the City and County of Honolulu or the State of Hawai‘i. In accordance with Executive Order 12898, Environmental Justice, dated February 11, 1994, and the Secretary of the Navy Notice 5090, dated May 27, 1994, the Navy has assessed the potential of the Proposed Action for disproportionately high and adverse human health or environmental effects on minority and low-income populations. In accordance with Executive Order 13045, Protection of Children from Environmental Health Risks and Safety Risks, dated April 21, 1997, the Navy has assessed the environmental health and safety risks of the Proposed Action that may disproportionately affect children. Due to its location in an industrial area with limited access and because

no significant impacts on environmental resources are expected, the Proposed Action would not create environmental health and safety risks that may disproportionately affect children and minority or disadvantaged populations.

**Land Use Compatibility.** No significant direct, indirect, short term or long term land use compatibility impacts are anticipated from the Proposed Action. The Proposed Action would continue the existing land uses in the project area (supply and waterfront operations) and is compatible with existing and planned adjacent land uses. Except during Building 478 demolition and upgrade of Wharves K10-K11 when there will be construction personnel in the area, there will be no increase in the number of personnel exposed to the explosive safety hazard. The new transit shed will be constructed outside the existing ESQD arcs established for handling of small-arms munitions.

#### 4.1.2 Pearl City Peninsula Alternative

**Physical Conditions** (*soils, topography, groundwater, air quality, noise*). The Pearl City Peninsula Alternative will not involve major changes to soil composition or topography at the site. Since there are no potable water aquifers underlying the Pearl City Peninsula site, this alternative would not impact drinking water sources. There would be short-term, temporary air and noise quality impacts associated with construction at this site. This alternative would introduce new long-term air emissions and noise sources (e.g., generators, material handling equipment [MHE], military and privately owned vehicles) at Pearl City Peninsula.

**Biological Resources** (*marine and terrestrial flora and fauna*). Short-term, temporary impacts to the marine environment would include sediment resuspension. The construction contractor will use BMPs to minimize/prevent environmental impacts during construction activities. Such BMPs include the use of silt curtains during in-water work and floating rafts as catchment devices to prevent debris and/or material from falling into the water. There are no resident Federally or State listed threatened, endangered or candidate marine species in the project area. If a green sea turtle enters an active construction area, construction activities will cease and resume only after the animal voluntarily departs from the active construction area. There are no Federally or State listed threatened, endangered or candidate terrestrial flora and fauna in the project area. Therefore, there will be no effects on any threatened or endangered species. There are no coral reefs within Pearl Harbor and no Essential Fish Habitat will be affected because there are no potentially sensitive and important zones identified as Habitat Areas of Particular Concern areas within or immediately adjacent to Pearl Harbor. Security floodlights would be directed at a downward angle as a BMP to minimize potential impacts to any migratory seabirds and shorebirds that occasionally may be transiting the area. The Pearl City Peninsula Alternative is not expected to result in the discharge of storm water, construction dewatering effluent or hydrotesting water into State waters. As such, a NPDES permit for the Pearl City Peninsula Alternative is not anticipated to be required; however, if there is a discharge, coverage under the applicable NPDES General Permit will be obtained.

**Infrastructure** (*traffic, utilities, drainage*). This alternative may have long-term traffic impacts due to the additional vehicular traffic associated with new cargo operations at Wharves V3-V4. The additional traffic volumes could exacerbate conditions on Lehua Avenue near Lehua Elementary School during peak hours. The additional traffic

volumes may also indirectly impact conditions at intersections farther from the project area, such as the intersection of Waimano Home Road and Kamehameha Highway.

This alternative would introduce new demands on existing potable water, wastewater, electrical and storm drainage systems at Pearl City Peninsula, and would require installation of new wastewater and electrical facilities to serve the area.

**Health and Safety** (*hazardous and regulated materials, flood hazard*). If further investigation shows that there have been subsurface releases of petroleum products, including leaded gasoline, this site would be remediated to comply with Federal and State standards commensurate with its proposed use prior to project construction. Similar to the Proposed Action, this alternative would also comply with Executive Order 13148, Greening the Government Through Leadership in Environmental Management.

Since the alternative is located in Zone D (undetermined flood hazard) as designated on FEMA Flood Insurance Rate Maps, compliance with federal floodplain management policies is not required.

**Socio-Economic Factors** (*population; employment; effects on children, disadvantaged and minority populations*). With the exception of potentially increasing health and safety risks to children, the Pearl City Peninsula Alternative would have similar impacts on socio-economic factors as the Proposed Action. The Pearl City Peninsula Alternative would increase vehicle traffic along Lehua Avenue, where Lehua Elementary School is located, and adjacent to Navy family housing units along FISC Road. There is a potential that increased traffic could result in noise and air quality impacts affecting children in the family housing area and students at the elementary school. While the relocation of the transit shed operations to Pearl City Peninsula may require the transportation of small-arms munitions on public roadways, these munitions will be transported in accordance with applicable Federal regulations.

**Land Use Compatibility.** No significant direct, indirect, short term or long term land use compatibility impacts are anticipated from the Pearl City Peninsula Alternative. FISC Pearl's waterfront cargo and staging operations are generally compatible with existing and planned land uses in the immediate area of the Pearl City Peninsula Alternative project area (operational and family housing). The replacement transit shed at this location would be constructed outside the ESQD arc that would be established for Wharves V3-V4 for handling of small-arms munitions. This ESQD arc will not impact adjacent operational and family housing areas.

#### 4.1.3 No Action

The No Action Alternative would not impact physical conditions, biological resources, infrastructure systems, socio-economic factors, or land use compatibility. Since Building 478 is structurally unsafe and contains regulated materials, the No Action Alternative has the potential to increase risks to health and safety of FISC Pearl personnel who work in the area.

#### 4.1.4 Cumulative Impacts

Since the Proposed Action would not result in adverse effects on the resource areas described above, it is not expected to contribute to cumulative impacts on those resources areas, when evaluated in conjunction with other government and private past, present and “reasonably foreseeable future actions.” The Proposed Action would not change existing topography; increase the potential for soil liquefaction at the PHNC; impact potable water aquifers; or adversely affect any biological resources of concern. It would not result in a net increase in utility demand or vehicular traffic in the area. The Proposed Action would not increase risks to human health and safety or impact long-term population and employment levels in the City and County of Honolulu or the State of Hawai‘i. The Proposed Action would not disproportionately affect children or minority or disadvantaged populations. Since it does not represent a change in scope or intensity from the current land use in the project area, the Proposed Action will not have a cumulative effect on land use compatibility. The Pearl City Peninsula Alternative may have cumulative traffic impacts on local- and regional-serving facilities, but would not result in cumulative impacts on other resource areas for reasons similar to the Proposed Action.

## **4.2 Cultural Resources**

### 4.2.1 Regulatory Background

For the purposes of this analysis, significant cultural resources are “historic properties,” i.e., those properties listed, or eligible for listing in the NRHP. Significant impacts to cultural resources are defined here as “adverse effects” to historic properties that cannot be mitigated.

As defined in the implementing regulations for Section 106 of the NHPA, the effects of a Federal undertaking are considered adverse if they “alter, directly or indirectly, any of the characteristics of a historic property that qualify the property for inclusion in the National Register in a manner that would diminish the integrity of the property’s location, design, setting, materials, workmanship, feeling or association” [36 CFR §800.5(a)(1)]. Examples of adverse effects include, but are not limited to, the following:

- Physical destruction, damage, or alteration of all or part of the property;
- Isolation of the property from, or alteration of the character of, the property’s setting when that character contributes to the property’s qualification for listing on the NRHP;
- Introduction of visual, audible, or atmospheric elements that are out of character with the property, or alter its setting;
- Neglect of a property resulting in its deterioration or destruction; and
- Transfer, lease, or sale of the property [36 CFR §800.5(a)(2)].

#### 4.2.2 Proposed Action

##### ***Historic Resources***

The proposed improvements on Wharves K10 and K11 would adversely affect these structures. Although portions of these wharves were recently upgraded, the proposed demolition of a 240-foot (approximately 73-meter) portion of Wharf K11, construction of a new reinforced concrete wharf on concrete piles, widening of the wharves, and the addition of a new steel sheet pile bulkhead behind the landside of K10 and K11 would alter the character of these properties' original design and materials.

Demolition of Building 478 to make room for the proposed widening of the wharf area would adversely affect this property.

##### ***Historic Views***

Demolition of Building 478, which is situated along the edge of the waterfront, would reduce the number of long, low foreground buildings as viewed from the water. However, the view from the water would not be significantly altered with the construction of a new facility, of compatible scale and design, in an area close to the waterfront and immediately south of the original location of Building 478.

##### ***Archaeological Resources***

Loko Kunana is outside of the project area and would not be affected by ground disturbing activities associated with the proposed action. The wharves and Building 478 were built on fill lands identified in the ICRMP as "areas with no and/or low potential for sites." Archaeological resources are not expected to be present.

##### ***Mitigation***

In accordance with 36 CFR §800, the Navy has afforded the ACHP the opportunity to comment and has consulted with the SHPO, the National Park Service, the Historic Hawai'i Foundation, the National Trust for Historic Preservation, the Office of Hawaiian Affairs, and the O'ahu Council of the Hawaiian Civic Clubs. The Navy concluded the Section 106 and Section 110 consultations by executing a Memorandum of Agreement (MOA) with the SHPO that stipulates ways to resolve, or mitigate, the adverse effects on historic properties. The full text of the executed MOA is included as Appendix A. A summary of the stipulations is presented in Section 4.7 Means of Mitigating Potentially Adverse Effects.

#### 4.2.3 Pearl City Peninsula Alternative

##### ***Historic Resources***

The construction of a new wharf to replace Wharves V3 and V4 would adversely affect these structures. The changes in the design and materials would greatly alter the character of these historic wharves.

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### ***Historic Views***

Much of the waterfront at the alternate site will remain open so the expansive views to the East Loch and to the northern edge of Ford Island would remain unobstructed.

### ***Archaeological Resources***

Archaeological resources would not be affected by construction activities at the alternate site. Extensive ground disturbing activities associated with the construction of a new transit facility and wharf would occur on fill land. Ground disturbing activities over the portion of the buried Loko Weloko are not expected to exceed the depth of fill material, which is 12 feet (approximately 4 meters).

#### **4.2.4 No Action**

No historic properties would be adversely affected under the No Action Alternative.

#### **4.2.5 Cumulative Impacts**

This Proposed Action and future projects proposed in FISC Pearl, such as the proposed demolition of several historic warehouses and buildings under MCON Project P-202 Construct Deployment Staging and Consolidate Warehouses, would collectively have the potential to adversely affect the historic character of the Naval Supply Zone and the PHNHL. However, the final scope of work for MCON Project P-202 is not known at this time and may or may not include the demolition of the warehouses and buildings. Therefore, the cumulative impacts on cultural resources from the Proposed Action and future projects cannot be assessed at this time. Based on the final scope of work for MCON Project P-202, a separate consultation under Section 106 of NHPA including a separate environmental assessment document under NEPA will be carried out as required.

The Pearl City Peninsula Alternative would not result in cumulative impacts on cultural resources.

### **4.3 Possible Conflicts Between the Proposed Action and the Objectives of Federal Land Use Policies, Plans and Controls**

#### **4.3.1 Commander Navy Region Hawaii Regional Shore Infrastructure Plan Overview Plan**

The CNRH Regional Shore Infrastructure Plan (RSIP) Overview Plan (NAVFAC EFD PACIFIC, November 2002) updates the 1999 O'ahu RSIP and presents the CNRH Long Range Land Use Plan (LRLUP) recommendations. The LRLUP recommendations provide guidance for appropriate property use for CNRH installations within a five to ten year time frame. It represents CNRH's development strategy and is intended to direct future planning and management decisions. Implementation of the LRLUP will further CNRH's goals of modernization, infrastructure reduction and consolidation, and increased efficiency.

The RSIP Overview Plan contains development plans for sub-areas within the PHNC, including the Kūāhua Peninsula area, in which the Proposed Action is located. The development plan for the Kūāhua Peninsula sub-area includes maintaining FISC Pearl staging areas adjacent to Wharves K10-K11. The Proposed Action is consistent with the CNRH RSIP Overview Plan's LRLUP for this sub-area.

#### 4.3.2 Coastal Zone Management Act

The purpose of the CZMA is to encourage states to manage and conserve coastal areas as a unique, irreplaceable resource. Federal activities that directly affect the coastal zone are to be conducted in a manner consistent with the State's Coastal Zone Management Program, to the maximum extent possible. The project area and alternative site are Federal property and not within the State's coastal zone as defined by the CZMA. The Navy has conducted an effects test and concluded that the Proposed Action would not have reasonably foreseeable direct or indirect effects on any coastal use or resource of the State's coastal zone; therefore, no documentation is required to be sent to the Hawai'i Coastal Zone Management Program Office.

### **4.4 Relationship of Short-Term Uses and Long-Term Productivity**

This section lists the trade-offs between short- and long-term gains and losses due to the Proposed Action. "Short-term" refers to the construction period; "long-term" refers to the operational period. The Proposed Action would have the following short- and long-term gains and losses:

- Short-term air quality, noise and marine water quality impacts during construction
- Long-term loss of cultural resources (see Section 4.7 for mitigation of impacts to cultural resources)
- Long-term productivity gains through improving efficiency in cargo loading and unloading operations

The Pearl City Peninsula Alternative would have long-term productivity losses for FISC Pearl due to the functional inefficiencies resulting from separating its waterfront cargo operations from its other operations. The relocation alternative is functionally inferior to the Proposed Action for the following reasons:

1. It would split the operations of FISC Pearl's Ocean Terminals Department by separating the waterfront operations from the MHE shop located in Building 449 on Kūāhua Peninsula. Forklifts and cranes requiring repair would have to be transported between the sites.
2. Cargo operations would be separated from Defense Distribution Depot Pearl Harbor's (DDPH) warehouses on Kūāhua Peninsula. DDPH provides critical support to U.S. Navy vessels, including transient aircraft carriers. FISC Pearl also receives daily issues via forklift from DDPH for shipment off island via its Ocean Terminals transit shed. Relocating the Ocean Terminals operation to Pearl City Peninsula would increase delivery times from DDPH.
3. FISC Pearl's line handling and crane/rigging support operations serve vessels at all berths within the PHNC main base. These operations would also have to support



vessels at the Pearl City Peninsula Alternative site, resulting in loss of work time due to the travel time required between sites.

4. Because existing fuel lines at Pearl City Peninsula have been abandoned, vessels on- and off-loading cargo at V3 and V4 would have to travel to Hotel Pier for refueling or have fuel delivered via tanker barge.

This alternative would be more costly to the Navy than the Proposed Action due to the need to revitalize and maintain excess infrastructure. Building 478 would have to undergo the following improvements to be categorized as an adequate facility in the Navy's shore infrastructure management system:

- Foundation stabilization
- Potential replacement of termite-damaged timber framing
- Fireproofing
- Repair of asphalt concrete pavement
- Tent fumigation
- Soil treatment
- Installation of a fire protection system

Other potential costs associated with this alternative that would not be incurred by the Proposed Action include:

- Hardening open, unpaved areas for cargo staging
- Security fencing for staging areas
- 24-hour access control (i.e., guards) either at entrance to Pearl City Peninsula or staging area
- Removal of abandoned fuel line in the vicinity of Wharves V3-V4

The Pearl City Peninsula Alternative would also require a propane fuel tank, diesel fuel pump, and gasoline pump to provide fuel for forklifts, generators, floodlights, crane and vehicles.

The No Action Alternative would have a continued long-term loss of continuing inefficient waterfront cargo operations.

#### **4.5 Irreversible and Irretrievable Commitments of Resources**

Resources that are committed irreversibly or irretrievably are those that cannot be recovered if the proposed project is implemented. The Proposed Action and Pearl City Peninsula Alternative would utilize fiscal resources, labor, construction equipment and materials. Demolition of a portion of Wharf K11 and Building 478 or Wharves V3 and V4 would irretrievably and irreversibly remove these historic facilities. No Action would not commit resources irreversibly and irretrievably.

#### **4.6 Energy Requirements and Conservation Potential**

The Proposed Action and Pearl City Peninsula Alternative would comply with design energy budgets specified in MIL-HDBK 1190, Naval Facilities Engineering Command letter, 11100, Ser 15C/pnb of June 5, 1995 and 10 CFR 435.

In addition, other methods of promoting energy savings and conservation can be incorporated into the design and construction of the proposed new and renovated facilities. Policies adopted by NAVFAC EFD PACIFIC<sup>1</sup> establish a general framework suitable for the inclusion of sustainability principles and concepts early in the design of new facilities. Examples of initiatives addressed by these principles include:

- Increased energy conservation and efficiency;
- Increased use of renewable energy resources;
- Selection of materials and products based on their life-cycle environmental impacts;
- Increased use of materials and products with recycled content;
- Recycling of construction waste and building materials after demolition.

The Proposed Action and Pearl City Peninsula Alternative would also comply with the following Executive Orders relating to energy conservation and coral reef protection:

***Executive Order 13101, Greening the Government Through Waste Prevention, Recycling, and Federal Acquisition***

Executive Order 13101, dated September 16, 1998, is intended to improve the Federal government's use of recycled products and environmentally preferable products and services. It states that pollution that cannot be prevented should be recycled and pollution that cannot be prevented or recycled should be treated in an environmentally safe manner. Disposal should be employed only as a last resort.

The Proposed Action and Pearl City Peninsula Alternative would incorporate efficient waste handling and provisions for recycling waste products. The demolition debris would be recycled to the maximum extent possible. The remaining demolition debris would be disposed in a local landfill to be determined by the demolition contractor.

***Executive Order 13123, Greening the Government Through Efficient Energy Management***

Executive Order 13123, dated June 8, 1999, requires the Federal government to improve its energy management for the purpose of saving taxpayer dollars and reduce emissions that contribute to air pollution and global climate change. Federal agencies are required to reduce greenhouse gas emissions; reduce energy consumption per square foot of facility; strive to expand use of renewable energy; reduce the use of petroleum within its facilities; and reduce water consumption.

***Executive Order 13089, Coral Reef Protection***

Executive Order 13089, dated July 11, 1998, requires all Federal agencies whose actions may affect U.S. coral reef ecosystems to:

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<sup>1</sup> U.S. Department of the Navy, Naval Facilities Engineering Command. *Naval Facilities Engineering Command Planning and Design Policy Statement 98-01 Design of Sustainable Facilities and Infrastructure*. June 1998.

U.S. Department of the Navy, Naval Facilities Engineering Command. *Naval Facilities Engineering Command Planning and Design Policy Statement 98-02 Criteria Supporting the Design of Sustainable Facilities and Infrastructure*. June 1998.

- Identify their actions that may affect U.S. coral reef ecosystems;
- Utilize their programs and authorities to protect and enhance the conditions of such ecosystems; and
- To the extent permitted by law, ensure that any actions they authorize, fund, or carry out will not degrade the condition of such ecosystems.

The Navy has completed marine surveys throughout Pearl Harbor. Based on these surveys, there are no coral reefs within Pearl Harbor.

#### **4.7 Means of Mitigating Potentially Adverse Effects**

This EA has identified the following potential adverse impacts on cultural resources from the Proposed Action. Mitigation measures for these potential impacts are also discussed below. The analysis did not identify potentially adverse effects on the other resource areas studied.

Demolition of Building 478 and improvements to Wharves K10 and K11 would adversely affect these historic properties.

As described in the executed MOA (Appendix A), the Navy will implement the stipulations summarized below to minimize and mitigate the adverse effects of the project on historic properties:

- CNRH will provide completed HABS/HAER reports (HABS No. HI-393 for Building 478 and HAER No. HI-28 for Wharves K10-K11) to the SHPO and any requesting consulting party.
- CNRH will complete “Overview Report and Photographs of the Development of Wharfs” (HAER No. HI-53) and provide copies to the SHPO and any requesting consulting party after its submission to the National Park Service.
- The new transit facility will be located on the footprint of a previously demolished building.
- The new transit facility will be similar to Building 478 in profile, scale and mass (one-story in height; low-slope gable roof; rectangular main floor plan with loading dock; color scheme using components of Building 1900).

## 5.0 AGENCIES CONSULTED

### **State of Hawai'i**

State Historic Preservation Officer  
Office of Hawaiian Affairs

### **Federal**

Advisory Council on Historic Preservation

### **Other**

Historic Hawai'i Foundation  
National Trust for Historic Preservation  
O'ahu Council of the Hawaiian Civic Clubs

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APPENDIX A

**MEMORANDUM OF AGREEMENT**

**MEMORANDUM OF AGREEMENT (MOA)  
BETWEEN  
THE COMMANDER NAVY REGION HAWAII  
AND  
THE HAWAII STATE HISTORIC PRESERVATION OFFICER  
REGARDING MCON PROJECT P-193  
PEARL HARBOR, HAWAII**

WHEREAS, the Commander Navy Region (COMNAVREG) Hawaii proposes MCON Project P-193, "Waterfront Improvements for K-10 and K-11" at the Pearl Harbor Naval Complex (hereafter the Undertaking); and

WHEREAS, MCON Project P-193 would require the upgrade and widening of wharves K-10 and K-11, the demolition of Building 478 (a waterfront transit facility), construction of a one-story replacement transit facility, and construction of a new reinforced concrete wharf on concrete piles; and

WHEREAS, the project area is located inside the Naval Supply historic management zone, as designated in the Integrated Cultural Resources Management Plan (ICRMP), and within the boundaries of the U.S. Naval Base National Historic Landmark (NHL); and

WHEREAS, it is anticipated that there may be other waterfront improvement projects in the future and that COMNAVREG Hawaii shall initiate consultation under 36 CFR § 800.6 for any undertaking that may have adverse effects on any of the contributing properties inside or immediately adjacent to the boundaries of the Naval Supply zone and the NHL; and

WHEREAS, COMNAVREG Hawaii has established the Undertaking's area of potential effects (APE) defined at 36 CFR § 800.16(d), to be the limits of the project area; and

WHEREAS, COMNAVREG Hawaii has determined that the Undertaking will have adverse effects on Building 478 and wharves K-10 and K-11, facilities designated as Category III in the ICRMP; and

WHEREAS, COMNAVREG Hawaii has consulted with the Hawaii State Historic Preservation Officer (SHPO), the NPS, the Historic Hawaii Foundation (HHF), the National Trust for Historic Preservation (NTHP), the Office of Hawaiian Affairs, and the Oahu Council of the Hawaiian Civic Clubs; and

WHEREAS, pursuant to Section 800.6(c)(3) of the regulations, 36 CFR Part 800, that implement the National Historic Preservation Act (NHPA), 16 U.S.C. 470f, Section 106 and Section 110(f) of the same act, 16 U.S.C. 470h-2(f), the entities listed above have been invited to concur in this MOA; and



WHEREAS, pursuant to Section 800.6(a)(1) of the regulations, 36 CFR Part 800, COMNAVREG Hawaii has notified the Advisory Council on Historic Preservation (ACHP) and ACHP has declined to participate in the consultation; and

NOW, THEREFORE, COMNAVREG Hawaii and the SHPO agree that upon COMNAVREG Hawaii's decision to proceed with the Undertaking, COMNAVREG Hawaii shall ensure that the following stipulations are implemented in order to satisfy COMNAVREG Hawaii's responsibilities under Section 106 and Section 110(f) of the NHPA.

## STIPULATIONS

COMNAVREG Hawaii shall ensure that the following measures are carried out:

### I. DOCUMENTATION

A. COMNAVREG Hawaii has completed photo documentation of Building 478 and K-10 and K-11, in accordance with the Historic American Buildings Survey (HABS) standards and specifications (<http://www.cr.nps.gov/habs/haer/habsstan.htm>). The National Park Service (NPS) has accepted the final reports and assigned HAER No. HI-28 for wharves K-10 and K-11, and HABS No. HI-383 for Building 478. Copies of the final HABS reports will be provided to the SHPO and any requesting consulting party.

B. Additionally, COMNAVREG Hawaii has completed a draft HABS "Overview Report and Photographs of the Development of Wharfs." Wharves K-10 and K-11 are included in this historical overview of the waterfront facilities (drydocks, wharfs, piers, and mooring structures) in the U.S. Naval Base, Pearl Harbor. NPS has reviewed the draft and assigned HAER No. HI-53. This documentation is being finalized and copies of the final report will be provided to SHPO and any requesting consulting party upon its submission to NPS.

### II. DESIGN GUIDELINES

A. In accordance with the ICRMP guidelines for Naval Supply zone, the new transit facility will be located on the footprint of a previously demolished building. Not only will this new construction fill in an area that was previously occupied, but will also place the facility close to the original location of Building 478.

B. Also in accordance with the ICRMP guidelines, the new transit facility's design is comparable with the designs of historic buildings along the waterfront. As depicted in drawings presented to SHPO in a meeting on October 10, 2003, the new transit facility will be similar to Building 478 in profile, scale, and mass, as follows:

1. Height is limited to one-story.
2. The building will have a low-slope gable roof.

3. Main floor plan is rectangular in shape, with the addition of a loading dock.
4. Color scheme of the new building will use components of nearby Building 1900.

C. Design review – COMNAVREG Hawaii shall provide final architectural drawings to any requesting consulting party.

### III. RESOLVING OBJECTIONS

A. Should any Signatory or Concurring Party to this MOA object in writing to COMNAVREG Hawaii regarding how the proposed Undertaking is carried out or the manner in which the terms of this MOA are carried out, COMNAVREG Hawaii shall consult with SHPO to resolve the objection. If COMNAVREG Hawaii determines that the objection cannot be resolved, COMNAVREG Hawaii shall forward all documentation relevant to the dispute to the ACHP, including COMNAVREG Hawaii's proposed response to the objection. Within thirty days after receipt of all pertinent documentation, the ACHP will:

1. Advise COMNAVREG Hawaii that it concurs with COMNAVREG Hawaii's proposed response, whereupon COMNAVREG Hawaii shall respond to the objection accordingly; or
2. Provide COMNAVREG Hawaii with recommendations pursuant to 36 CFR § 800.2 (b)(2) which COMNAVREG Hawaii shall take into account in reaching a final decision regarding the dispute; or
3. Notify COMNAVREG Hawaii that it will comment pursuant to 36 CFR § 800.7(c) and proceed to comment on the subject in dispute.

B. Should the ACHP not exercise one of the above options within thirty days after receipt of all pertinent documentation, COMNAVREG Hawaii may assume that the ACHP concurs in the proposed response to the objection.

C. COMNAVREG Hawaii shall take into account the ACHP's recommendation or comment provided in accordance with this stipulation with reference only to the subject objection. COMNAVREG Hawaii's responsibility to carry out all actions under this MOA that are not the subject of the objection shall remain unchanged.

### IV. DURATION

A. This MOA shall become effective upon execution of COMNAVREG Hawaii and the SHPO, and shall terminate at the completion of all mitigation commitments stipulated to in this MOA, or until terminated under either Stipulation IV.B. or Stipulation VII. COMNAVREG Hawaii will notify all parties to the MOA in writing when its actions have been completed and that the MOA has been terminated.

B. This MOA shall be terminated if the Undertaking has not commenced within two years of execution of this MOA. COMNAVREG Hawaii will notify all consulting parties in writing at least 30 days prior to termination for reconsideration of the terms of this MOA.

## V. DISCOVERIES

A. If during the performance of the Undertaking, previously unidentified historic properties are discovered, or previously unanticipated effects occur to known historic properties, COMNAVREG Hawaii shall make reasonable efforts to avoid, minimize or mitigate adverse effects to such properties. COMNAVREG Hawaii shall determine actions that can be taken to resolve adverse effects, and notify the SHPO, and any Native Hawaiian organization that has requested to be notified within 48 hours of the discovery by telephone, followed by written notification to be sent by facsimile. The notification shall include an assessment of National Register eligibility and proposed actions to resolve potential adverse effects.

B. The SHPO and Native Hawaiian organizations shall respond within 48 hours of the notification. All access by representatives of these organizations will be subject to reasonable requirements for identification, escorts (if necessary), safety, and other administrative and security procedures.

C. COMNAVREG Hawaii will take into account recommendations regarding National Register eligibility and proposed actions, and then carry out appropriate actions. Should such actions include archaeological investigations, these actions will be carried out by or under the direct supervision of a person or persons meeting, at the minimum, the Secretary of the Interior's Professional Qualification Standards (Federal Register, Vol. 62, No. 119, page 33712, June 20, 1997) for Archaeologists. COMNAVREG Hawaii shall provide the SHPO and Native Hawaiian organizations a report of the actions when they are completed.

## VI. AMENDMENTS

Any Signatory to this MOA may propose to COMNAVREG Hawaii that it be amended, whereupon COMNAVREG Hawaii shall consult with the other Signatories to this MOA to consider such an amendment. 36 CFR § 800.6(c)(7) shall govern the execution of any such amendment.

## VII. TERMINATION

If any Signatory determines that the terms of this MOA cannot be or are not being carried out, the Signatories shall consult to seek amendment of this MOA. If this MOA is not amended, any Signatory may terminate it. COMNAVREG Hawaii shall either execute an MOA with Signatories under 36 CFR § 800.6(c)(1) or request comments from the ACHP under 36 CFR § 800.7(a).


### VIII. ANTI-DEFICIENCY

The Anti-Deficiency Act, 31 USC 1341, prohibits federal agencies from incurring an obligation of funds in advance of or in excess of available appropriations. Accordingly, the parties agree that any requirements for the obligation of funds arising from the terms of this agreement shall be subject to the availability of appropriated funds for that purpose, and that this agreement shall not be interpreted to require the obligation or expenditure of funds in violation of the Anti-Deficiency Act.

Execution of this MOA by COMNAVREG Hawaii and the Hawaii SHPO, and its submission to the ACHP in accordance 36 CFR § 800.6(b)(1)(iv), shall, pursuant to 36 CFR 800.6(c) be considered an agreement with the ACHP for the purposes of Section 110(l) of the NHPA. Execution and submission of this MOA, and implementation of its terms evidences that COMNAVREG Hawaii has afforded the ACHP an opportunity to comment on the Undertaking and its potential effects on historic properties, and that COMNAVREG Hawaii has taken into account the effects of the Undertaking on historic properties.

SIGNATORIES:

COMMANDER, NAVY REGION HAWAII



CAPTAIN RONALD R. COX  
Acting

22 Jan 04  
Date

SIGNATORIES:

HAWAII STATE HISTORIC PRESERVATION OFFICER

Mr. Peter Young

Date

CONCURRING PARTIES:

NATIONAL TRUST FOR HISTORIC PRESERVATION

*Paul W. Edmondson*

December 22, 2003

Mr. Paul Edmondson

Date

CONCURRING PARTIES:

HISTORIC HAWAII FOUNDATION

Signed for Susan Takaki 1/17/04  
Mr. David Scott Date



CONCURRING PARTIES:

OAHU COUNCIL OF HAWAIIAN CIVIC CLUBS

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Mr. Shad Kane

Date

CONCURRING PARTIES:

OFFICE OF HAWAIIAN AFFAIRS

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Ms. Pua Aiu

Date